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Vantage 17 Cable

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Operator's Manual
Manuel d'utilisation
Libro de Instrucciones

READ THIS BOOK
LEA ESTE MANUAL
LISEZ CE MANUEL

EN English (3 - 21)
ES Español (23 - 41)
FR Français (43 - 62)

This book has important information for the use and safe operation of this machine. Failure to read this book prior to operating or attempting any service or maintenance procedure to your Clarke machine could result in injury to you or to other personnel; damage to the machine or to other property could occur as well. You must have training in the operation of this machine before using it. If your operator(s) cannot read this manual, have it explained fully before attempting to operate this machine.
All directions given in this book are as seen from the operator's position at the rear of the machine.
For new books write to: Clarke®, 2100 Highway 265, Springdale, Arkansas 72764.

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OPERATOR SAFETY INSTRUCTIONS

DANGER:	**It indicates a dangerous situation with risk of death for the operator.**
WARNING:	**It indicates the risk for people of being injured and for objects of being damaged.**
CAUTION:	**It indicates a caution or a remark related to important or useful functions. Pay the greatest attention to the paragraphs marked by this symbol.**

DANGER:	**This machine must be used by properly trained and authorized personnel only. Children or disabled people cannot use this machine.**
DANGER:	**Do not operate the machine near toxic, dangerous, inflammable and/or explosive powders, liquids or vapours.**
DANGER:	**Before performing any maintenance/repair procedure, disconnect the power supply cable from the electrical mains.**
DANGER:	**Do not wear jewels when working near electrical components.**
WARNING:	**Before connecting the machine to the electrical mains, make sure that the frequency and voltage shown in the serial number plate/technical data match the mains voltage.**
WARNING:	**Do not use with damaged power supply cable or plug. If the machine is not working as it should, has been damaged, left outdoors or dropped into water, return it to the Service Center.**
WARNING:	**If the supply cable or the plug is worn or damaged, it needs to be replaced by the Service Center.**
WARNING:	**Do not pull or carry the machine by the supply cable; never use the power supply cable as a handle. Do not close a door on the supply cable, or pull the supply cable around sharp edges or corners. Do not run the machine on the battery charger cable. Keep the battery charger cable away from heated surfaces.**
WARNING:	**Do not unplug the machine by pulling the supply cable. To unplug, grasp the plug, not the cable.**
WARNING:	**Do not handle the plug or the machine with wet hands.**
WARNING:	**Turn off all controls before unplugging.**
WARNING:	**To reduce the risk of fire, electric shock, or injury, do not leave the machine unattended when it is plugged in. Unplug the machine from the outlet when not in use and before servicing.**
WARNING:	**To avoid electric shock, do not expose to rain. Store the machine indoors.**
WARNING:	**Do not allow to be used as a toy. Close attention is necessary when used near children.**
WARNING:	**Use only as described in this Manual. Use only Clarke recommended accessories.**
WARNING:	**Take all necessary precautions to prevent hair, jewerly and loose clothing from being caught in the machine moving parts or vacuuming parts of this machine.**

WARNING: Do not leave the machine unattended without being sure that the machine cannot move independently.

WARNING: Do not use the machine on slopes with a gradient exceeding the specifications.

WARNING: Do not allow any object to enter into the openings. Do not use the machine if the openings are clogged; always keep the openings free from dust, hair and any other foreign material which could reduce the air flow.

WARNING: While using this machine, take care not to cause damage to people.

WARNING: Do not use the machine in particularly dusty areas.

WARNING: Do not put any can containing fluids on the machine.

WARNING: The machine working temperature must be between +32°F and +104°F (0°C and +40°C).

WARNING: The storage temperature must be between +32°F and +104°F (0°C and +40°C).
The humidity must be between 30% and 95%.

WARNING: Always protect the machine against the sun, rain and bad weather, both under operation and inactivity condition.

WARNING: Do not use the machine as a means of transport.

WARNING: Do not use the machine on slopes with an inclination higher than 2%.

WARNING: Do not allow the brush to operate while the machine is stationary to avoid damaging the floor.

WARNING: Do not bump into shelves or scaffoldings, particularly where there is a risk of falling objects.

WARNING: Do not tamper with the machine safety guards and follow the ordinary maintenance instructions.

WARNING: Do not remove or modify the labels affixed to the machine.

WARNING: In case of fire, use a powder fire extinguisher, not a water one.

WARNING: To ensure the proper and safe operation of the machine, have the scheduled maintenance and repair, detailed in the relevant chapter of this Manual, performed by the authorized personnel or an authorized Service Center.

WARNING: Carefully read all the instructions before carrying out any maintenance/repair procedure.

WARNING: If parts must be replaced, require GENUINE spare parts from a Dealer or Authorized Retailer.

WARNING: Do not wash the machine with direct or pressurized water jets, or with corrosive substances.

WARNING: Do not work under the machine without supporting it with safety stands.

WARNING: **The machine must be disposed of properly, because of the presence of toxic-harmful materials (batteries, electronic boards etc.), which are subject to standards that require disposal in special centers (see Scrapping chapter).**

WARNING: **If the machine is used according to the instructions, the vibrations do not cause dangerous situations. The machine vibration level is less than 98.42 in/s2 (2.5 m/s2) (98/37/EEC - EN 1033/1995).**

WARNING: **Pay attention during the machine transfers when temperature is below freezing point. The water in the recovery tanks or in the hoses could freeze and seriously damage the machine.**

WARNING: **Use the brushes and the pads supplied with the machine and those specified in the Operator's Manual. Using other brushes or pads could reduce safety.**

INTRODUCTION

The Vantage 17 Cable model of the Clarke scrubber-dryer ensures a highly effective floor cleaning performance. The Vantage 17 Cable model uses a single rotary brush to clean an area of 17.0 in (430 mm) in width. The rear squeegee performs the floor cleaning and the vacuum system recovers the washing water in a single pass.

HOW TO KEEP THIS MANUAL

The Operator's Manual must be kept near the machine, inside an adequate case, away from liquids and other substances that can cause damage to it.

IDENTIFICATION DATA

The machine serial number and model are shown on the plate and can be read from the outside. (A, Fig. 2 - page 9).
The machine model year is written in the Declaration of Conformity and it is also indicated by the first two figures of the machine serial number.
This information is useful when requiring machine spare parts. Use the following table to write down the machine identification data for any further reference.

MACHINE Model _____
MACHINE serial number _____

CHANGES AND IMPROVEMENTS

KENT constantly improves its products and reserves the right to make changes and improvements at its discretion without being obliged to apply such benefits to the machines previously sold.
Any change and/or addition of accessories must be approved and performed by Clarke.

UNPACKING

To unpack the machine carefully follow the instructions on the packing.
When the machine is delivered, check that the packing and the machine were not damaged during transportation. In case of visible damages, keep the packing and have it checked by the Carrier that delivered it. Call the Carrier immediately to fill in a damage claim.
Please check that the following items have been supplied with the machine:

1. Technical documents:
   – Scrubber-dryer Operator’s Manual
2. Supply cable extension

MACHINE SPECIFICATIONS

Model	Vantage 17 Cable 115 V	Vantage 17 Cable 230 V
Working Voltage	115 V	230 V
Drive Speed	Determined by brush rotation	
Vacuum Motor	550 W, 60 Hz	550 W, 50 Hz
Vacuum System Capacity	51.8 in H_2O (1,316 mm H_2O)	
Solution Tank Capacity	8.2 gal (31 liters)	
Solution Flow (min/max)	0.08/0.26 gal/min (0.3/1.0 liters/min)	
Recovery Tank Capacity	7.7 gal (29 liters)	
Squeegee	Straight	
Squeegee Width	28.3 in (720 mm)	
Cleaning Width	17 in (430 mm)	
Brush/Pad Motor	550 W, 60 Hz	1,100 W, 50 Hz
Brush/Pad Diameter	17 in (430 mm)	
Brush/Pad Rotation Speed	150 rpm	
Brush/Pad On-Floor Pressure (with Full Tank)	61.6 lbs (28 kg)	
Central Wheels on Fixed Axle Diameter	9.8 in (250 mm)	
Pivoting Wheel (diameter)	1.9 in (49 mm)	
Wheel Pressure on the Ground	Less than 0.5 N/mm^2	
Maximum Floor Inclination	2 %	
Machine Length	43.9 in (1,115 mm)	
Machine Width (without Squeegee)	22.4 in (570 mm)	
Machine Height	41.4 in (1,050 mm)	
Machine weight with broom and full solution tank (working condition)	217.2 lbs (98.5 kg)	
Sound Pressure Level (at the Operator's Position)	76 dB(A)	

GROUNDING INSTRUCTIONS

This machine is equipped with a grounding system. If the machine has a malfunction or an electrical failure, the grounding system reduces the risk of electric shock. This Machine is equipped with a power supply cable with grounding cable and plug with grounding connection.
The plug must be inserted in proper electrical mains equipped with a grounding system according to the Law in force.

WARNING:
Improper connections can cause electric shock. Ask a technician to check if the electrical plug to be used is equipped with a grounding connection.
Do not modify the plug of the machine. If it is not possible to connect the plug of the machine to the electrical mains, have a qualified technician install a proper electrical mains equipped with a grounding system, according to the Law in force.

Extension

Use the extension supplied with the machine or an extension of identical electrical characteristics.

MACHINE TRANSPORT PROCEDURES

How to Load and Unload the Machine from a Van or a Truck

WARNING:
This machine is heavy. Machine transfer must be performed by qualified personnel only. Machine transfer on steep ramps must be performed by two well-trained operators only. Always move it slowly. Do not turn the machine on slopes. Do not leave the machine unattended on slopes. Loading ramp width must not be less than 40 in (1 m).

1. Check that the loading ramp is not longer than 8 feet (2.5 m) and not wider than 40 inches (1 m). Its thickness must be adequate to support the machine and operators' weight.
2. Check that the ramp is dry and clean.
3. Position the ramp properly.
4. Before loading the machine, remove the squeegee assembly and the brush/pad holder. Before loading the machine, empty both the solution and the recovery tank.

How to Fasten the Machine Inside the Vehicle

5. Clarke recommends tying down machine when transporting.

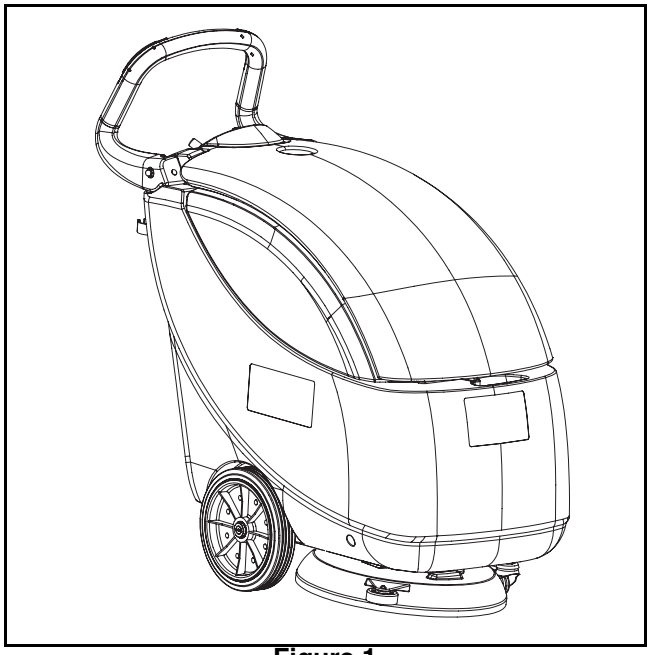
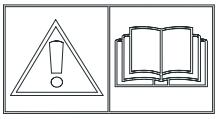
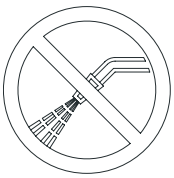


Figure 1

SYMBOLS SHOWN ON THE MACHINE



WARNING:
Carefully read all instructions before performing any procedure.



WARNING:
Do not wash the machine with direct or pressurized water jets.

MACHINE DESCRIPTION

OUTER STRUCTURE

(See Fig. 2)

A. Serial number plate/technical data/mark of conformity
B. Handlebar
C. Control panel
D. Solution flow control lever
E1. ECO Solution Flow Position
E2. Maximum solution flow position
F. Recovery tank cover
G. Rear support wheel for transport/parking
H. Central wheels on fixed axle
I. Brush/pad-holder with pad
J. Brush/pad-holder cover
K. Squeegee
L. Squeegee knobs
M. Front squeegee blade
N. Rear squeegee blade
O. Squeegee blade fixing springs
P. Recovery tank drain hose
Q. Recovery tank drain hose bracket
R. Solution drain valve
S. Squeegee lifting/lowering lever
T. Solution filter
U1. Power supply cable
U2. Power supply cable extension
V. Squeegee vacuum hose
W. Transport/parking device
W1. Transport/parking device activated
W2. Transport/parking device deactivated
X. Transport/parking device positioning pin
Y. Recovery water tank
Z. Solution tank

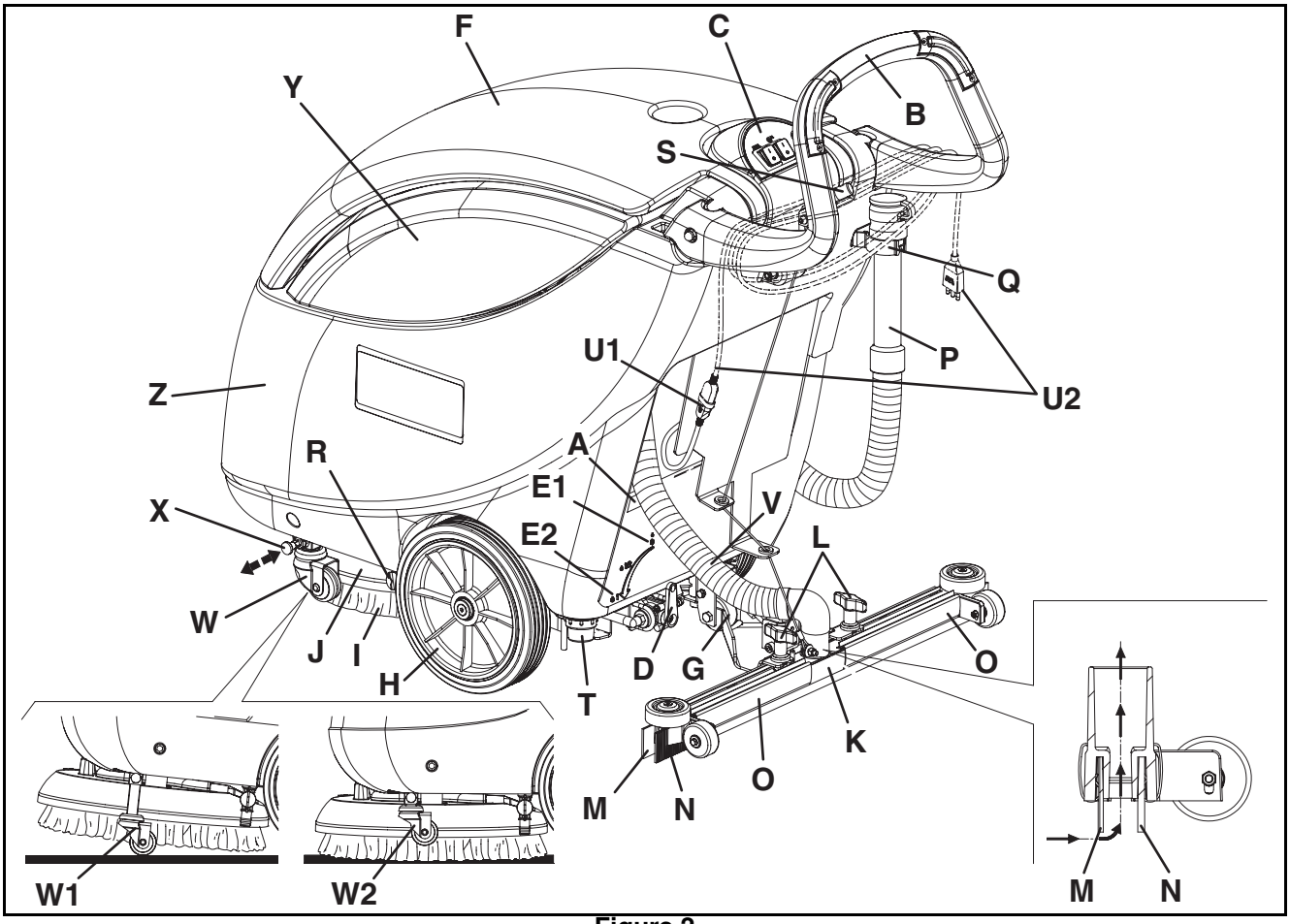


Figure 2

INNER STRUCTURE

(See Fig. 3)

A. Recovery tank cover (open)
B. Recovery tank cover gasket
C. Cover stand (applied)
D. Recovery tank
E. Solution tank
F. Suction grid with automatic shut-off float
G. Recovery water drain hole
H. Vacuum motor
I. Brush/pad motor
J. Cover with brush/pad-holder coupling pin
K. Machine speed adjusting screw
L. Brush
M. Pad-holder
N. Pad
O. Vent hole
P. Terminal board box

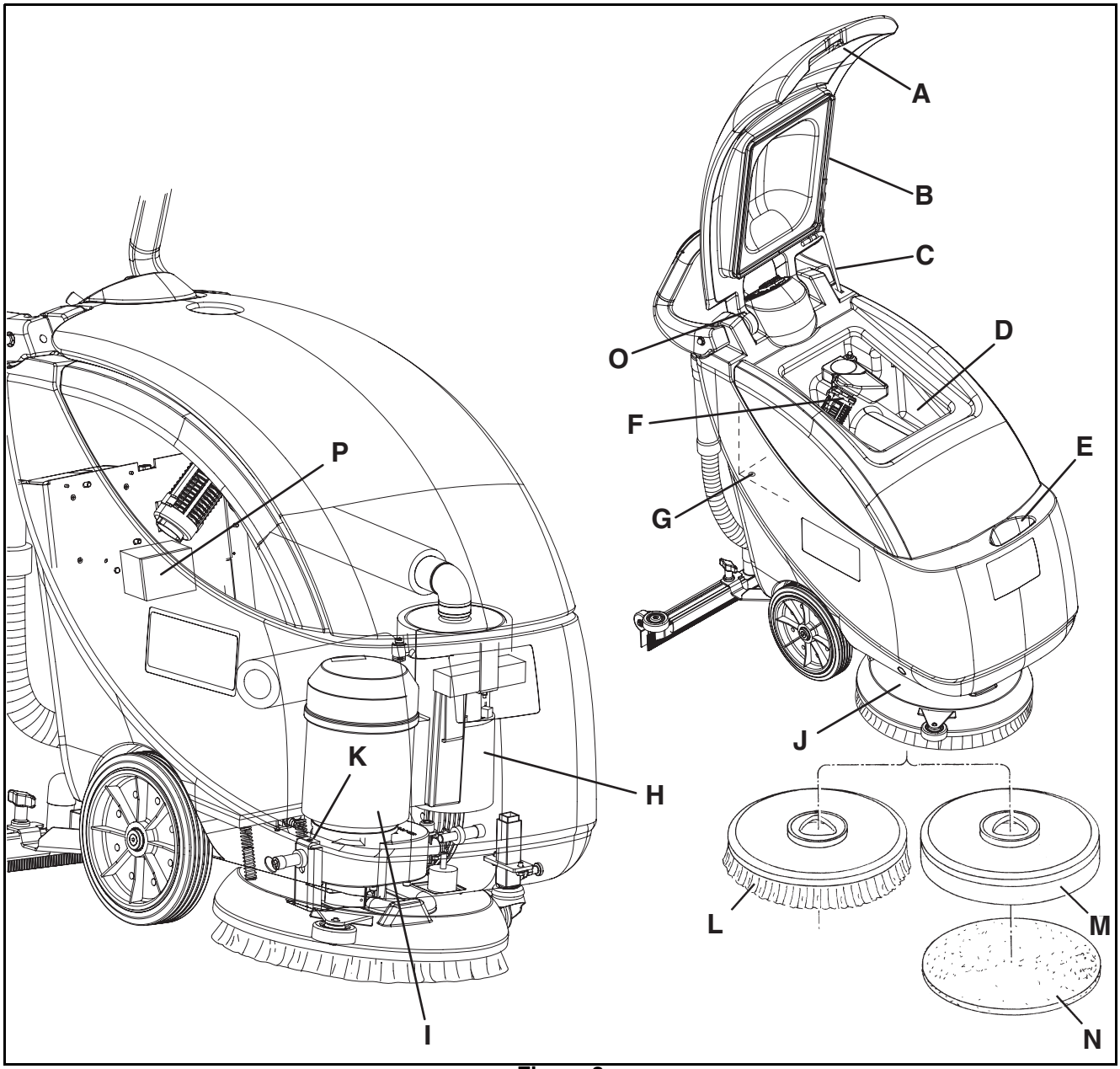


Figure 3

CONTROL PANEL

(See Fig. 4)

Brush/Pad Rotation Switch (A, Fig. 4)

When it is turned to the “I” position, the machine is ready to start the brush/pad rotation. To start the brush/pad rotation, press and hold one or both the activation switches (C, Fig. 4).
When it is turned to the “0” position, the brush/pad rotation is deactivated.

Water Vacuuming Switch (B, Fig. 4)

When it is turned to the “I” position, it starts the vacuuming of the recovery water.
When it is turned to the “0” position, it stops the vacuuming of the recovery water.

Activation Switches (C, Fig. 4)

When one or both the activation switches are pressed, the brush/pad rotation is activated.
The switches are active only if the brush/pad rotation switch (A, Fig. 4) is turned to the “I” position.

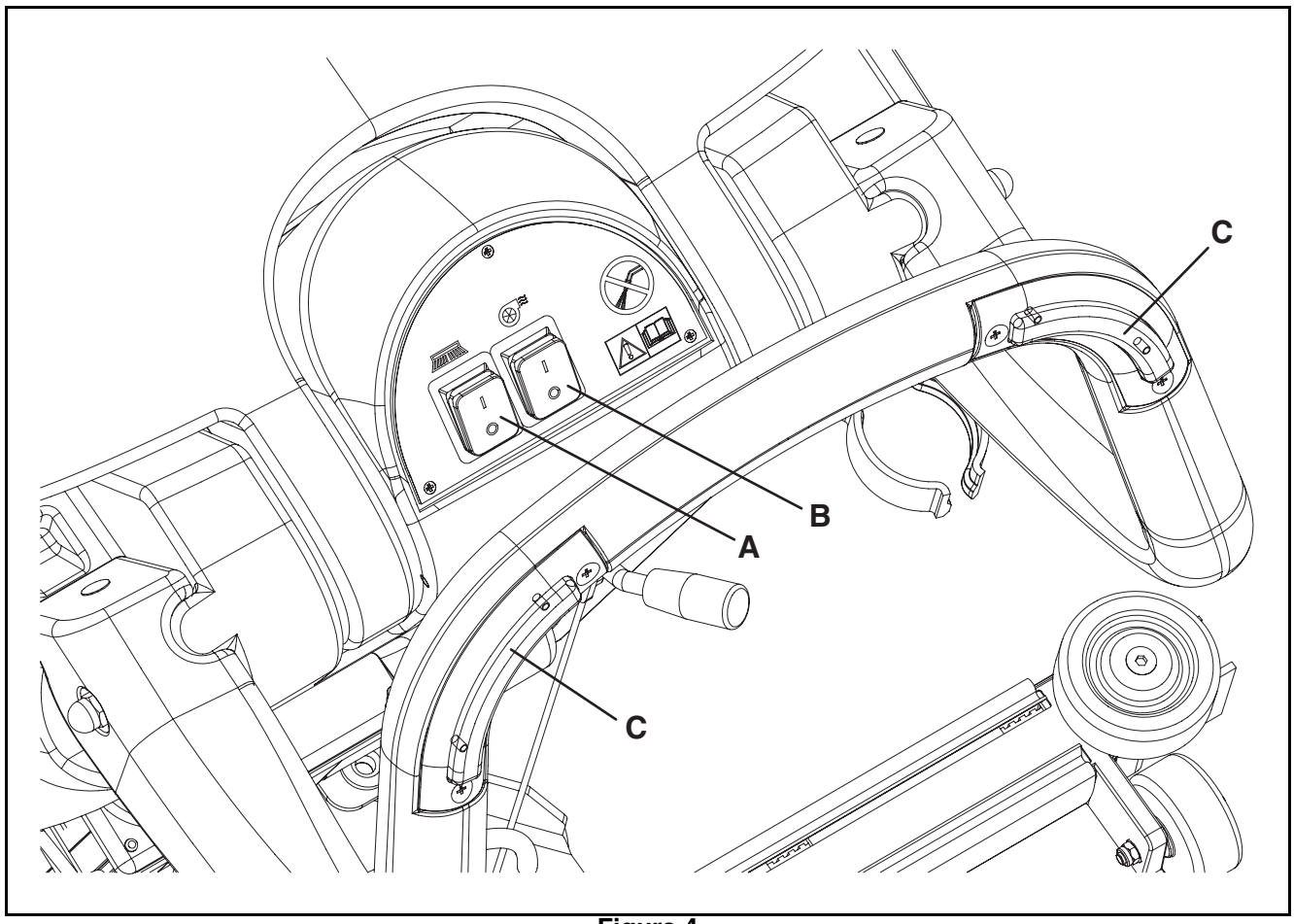


Figure 4

USE

WARNING:
On some points of the machine there are some labels indicating:
- **DANGER**
- **WARNING**
- **CAUTION**
- **INFORMATION**

While reading this Manual, the Operator must pay particular attention to the symbols shown in the labels.
Do not cover these labels for any reason and immediately replace them if damaged.

BEFORE MACHINE START-UP

To prepare the machine for operation, follow this procedure before start-up.

Squeegee Installation

1. Install the squeegee (A, Fig. 5) and fix it by means of the squeegee knobs (B), then connect the vacuum hose (C) to the squeegee.

Solution Tank Filling

2. Fill the solution tank (A, Fig. 6) with a solution suitable for the work to be carried out.
   Do not fill the solution tank completely, leave few inches from the edge.
   Always follow the dilution instructions on the container label on the chemical product used to create the solution.
   The solution temperature must not exceed 100°F (40°C).

CAUTION:
Use only low-foam and non-flammable liquid detergents, intended for automatic scrubber applications.

Brush or Pad-Holder Installation

NOTE:
According to the kind of cleaning to be carried out, the machine can be equipped both with the brush (B, Fig. 6) and the pad-holder (C) with pad (D).

3. Deactivate the transport/parking device (D, Fig. 5) by putting it in position (E) after inserting the relevant pin (F).
4. Lift the brush cover (G, Fig. 5) by prying the handlebar (H).
5. Place the brush (B, Fig. 6) or the pad-holder (C) with pad (D) under the cover.
6. Lower the cover (G, Fig. 5) by means of the handlebar (H).
7. Connect the extension (J, Fig. 5) with the power supply cable (K). Connect the extension plug (L) to the electrical mains.

WARNING:
Before connecting the machine to the electrical mains, make sure that the frequency and voltage shown in the serial number plate/technical data (M, Fig. 5) match the mains voltage.

8. Turn the brush/pad rotation switch (I, Fig. 5) to the "I" position; then hook the brush/pad-holder by pressing for a few seconds one or both switches (N, Fig. 5).
   If the hooking operation is difficult, manually rotate the brush/pad-holder counterclockwise (Fig. 7, next page).

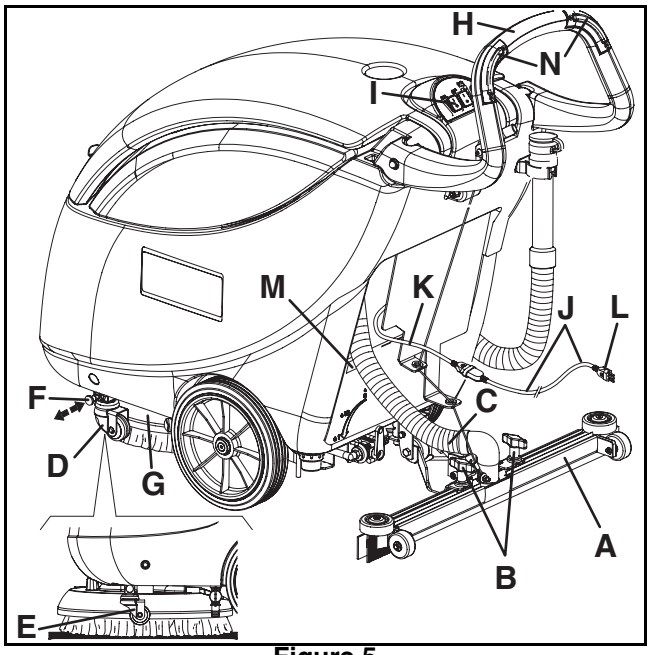


Figure 5

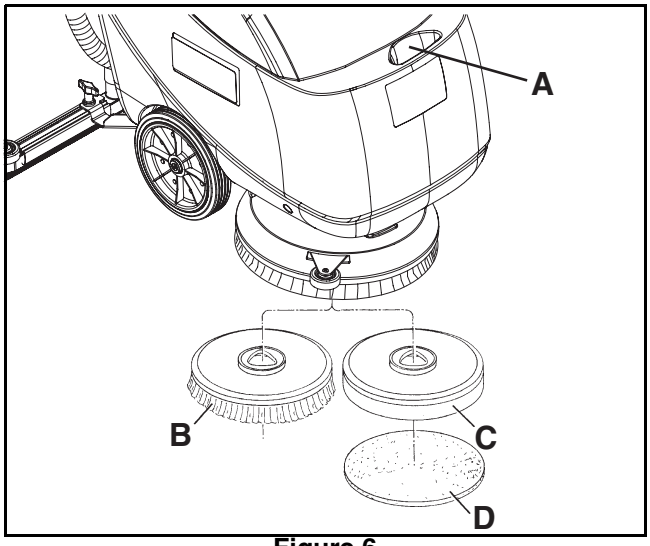


Figure 6

MACHINE START AND STOP

Start

1. Prepare the machine according to the procedure shown in the previous paragraph.
2. If the machine has not yet been connected to the electrical mains, connect it proceeding as follows.
   Connect the power supply cable (I) to the extension (H, Fig. 8) supplied. Connect the extension plug (J) to the electrical mains.

WARNING:
Before connecting the machine to the electrical mains, make sure that the frequency and voltage shown in the serial number plate/technical data (M, Fig. 8) match the mains voltage.

3. Lower the squeegee (A, Fig. 8) by pushing the lever (B) downwards.
4. Turn the solution flow control lever (C, Fig. 8) to one of the following positions, according to the type of cleaning to be carried out:
   – **ECO system**: When the lever (C, Fig. 8) is in the "ECO" position (D), the machine works in a special condition of programmed water "economy" usage; as the water flow is set and constant, the machine can work with a cleaning time of 70-80 minutes [0.08 gal/min (0.3 liters/min].
   – **Variable system**: When the lever is turned to the left (variable flow), it is possible to increase the capacity up to 0.26 gal/min (1 liter/min) (E, Fig. 8).
   During machine operation, it is not possible to completely close the water flow to the brush/pad.
5. Turn the switches (F and G, Fig. 8) to the "I" position.
6. While keeping both hands on the handlebar (K, Fig. 8), start the machine by pressing one or both the activation switches (L).

Machine Stop

7. Release the switches (L, Fig. 8).
8. Turn the switches (F and G, Fig. 8) to the "0" position.
9. Disconnect the power supply cable plug (J) from the electrical mains. If necessary, roll up the power supply cable (H, Fig. 8) on the handlebar into position (N).
10. Lift the squeegee by pushing the lever (B, Fig. 8) completely upwards.
11. Lift the brush/pad by activating (B, Fig. 9) the transport/parking device (A) after inserting the relevant pin (C).

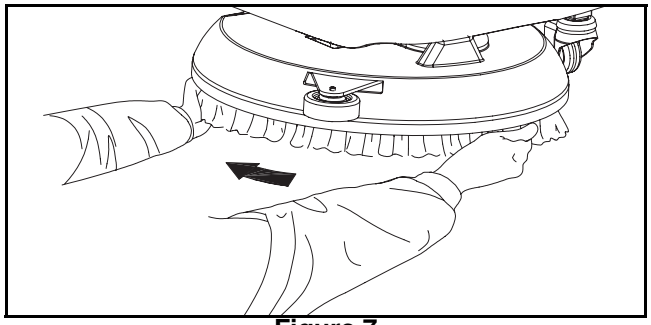


Figure 7

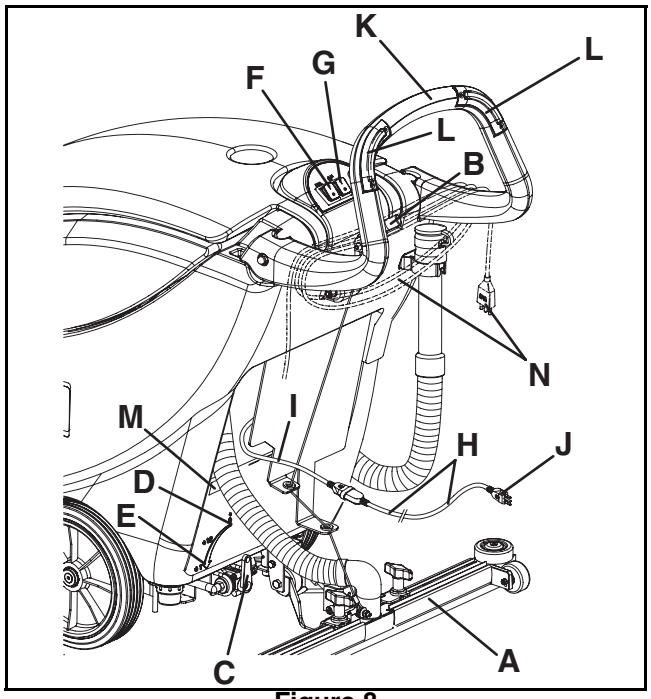


Figure 8

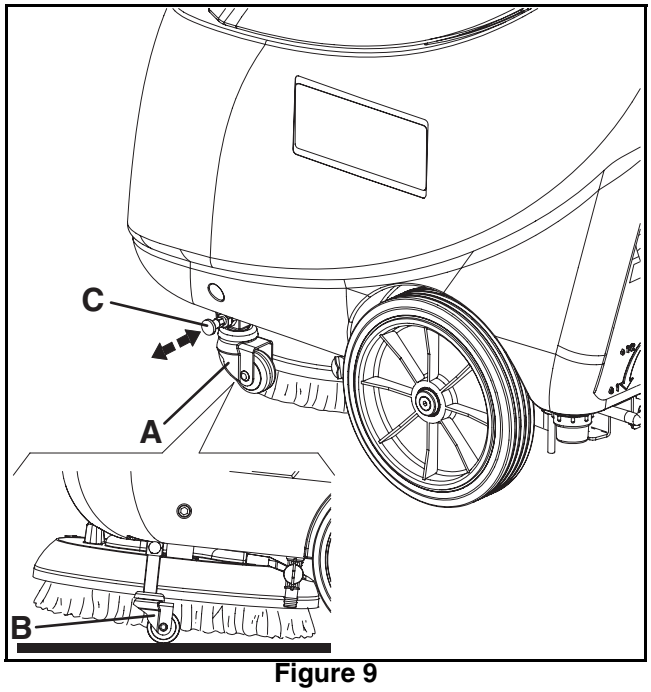


Figure 9

MACHINE OPERATION (SCRUBBING/DRYING)

1. Start the machine according to the procedure shown in the previous paragraph.
2. While keeping both hands on the handlebar (I, Fig. 10), move the machine and start scrubbing/drying the floor.

CAUTION:
To avoid damaging the floor surface:
- **Do not use the brush/pad without the solution.**
- **When the machine is stopped, stop the brush/pad by releasing the switches (A, Fig. 10).**

CAUTION:
Before lifting the brush/pad, stop its rotation by releasing the switches (A, Fig. 10).

3. If necessary, adjust the solution flow sent to the brush/pad by turning the lever (B, Fig. 10).

Machine Speed Adjustment

4. The machine speed depends on the type of floor to be cleaned and on the choice of using brush or pad.
   If necessary, it is possible to adjust the machine speed by following the relevant procedure in the Maintenance chapter.

MACHINE TRANSPORT/PARKING

After operation, proceed as follows to transport/park the machine.

1. Turn the brush/pad rotation switch and the water vacuuming switch (F and G, Fig. 10) to the “0” position.
2. Disconnect the power supply cable plug (C, Fig. 10) from the electrical mains. Roll up the power supply cable on the handlebar into position (J).
3. Lift the squeegee by pushing the lever (H, Fig. 10) completely upwards.
4. Grasp the handlebar (A, Fig. 11) and slightly lower it until the rear wheel (B) comes into contact with the floor, as shown in the figure. While holding the machine in this position, push it to the transport/parking area.

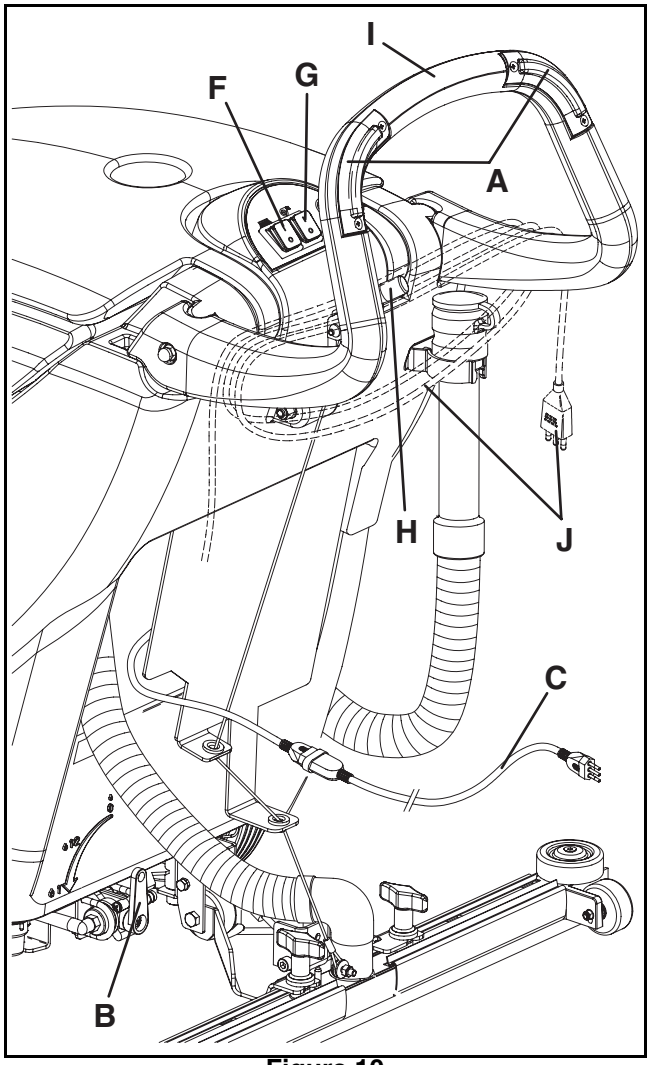


Figure 10

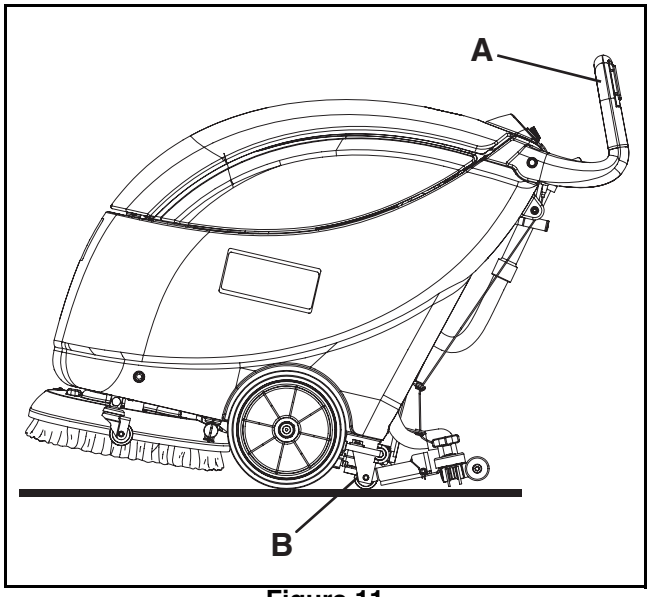


Figure 11

TANK EMPTYING

An automatic float shut-off system (A, Fig. 12) deactivates the vacuum system once the recovery tank (B) is full.
The vacuum system shutdown is due to the recovery tank filling, which prevents recovery water from being vacuumed, and it is signalled by a sudden increase in the system motor noise frequency.
When the recovery tank (B, Fig. 12) is full, empty it according to the following procedure.

Recovery Tank Emptying

1. Stop the machine by turning the brush/pad rotation switch and the water vacuuming switch (A and B, Fig. 13) to the “0” position.
2. Disconnect the power supply cable plug (M, Fig. 13) from the electrical mains. Roll up the power supply cable on the handlebar into position (N).
3. Lift the squeegee by means of the lever (C, Fig. 13).
4. Drive the machine to the appointed disposal area.
5. Insert the positioning pin (E), lift the brush/pad and activate the transport/parking device (D, Fig. 13) by means of the handlebar.
6. Disconnect the recovery tank drain hose (F, Fig. 13) from the bracket (G); open the cover (H), then lower the hose (F) and empty the recovery tank. Then, rinse the tank with clean water.

Solution Tank Emptying

7. Carry out steps 1 to 5.
8. Empty the solution tank by opening the drain valve (I, Fig. 13). Then, rinse the tank with clean water.

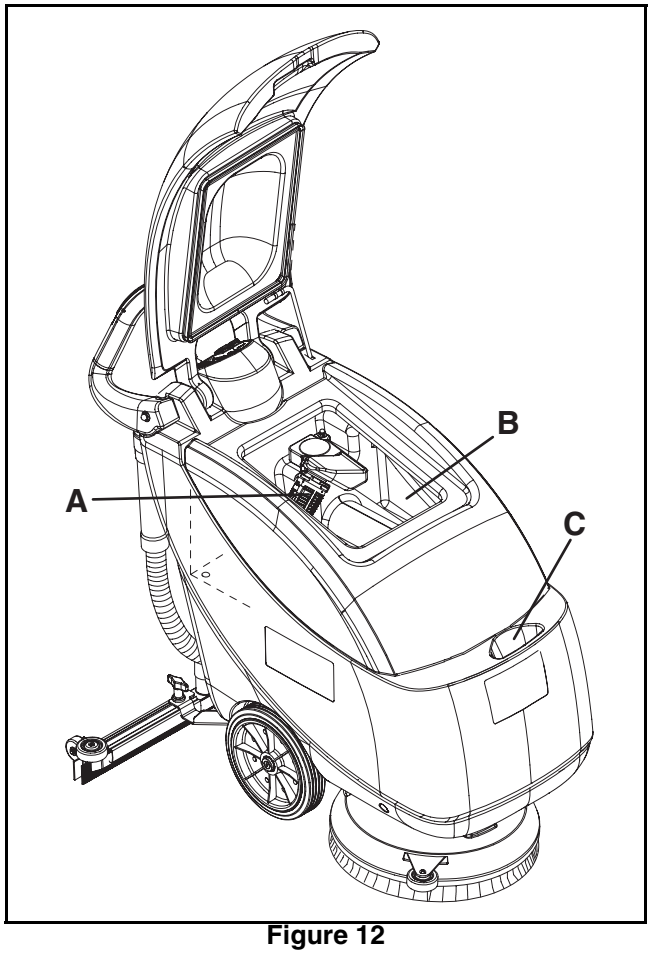


Figure 12

AFTER USING THE MACHINE

After scrubbing-drying, before leaving the machine proceed as follows:

1. Remove the brush/pad-holder as follows:
   – Turn the brush/pad rotation switch (A, Fig. 13) to the “I” position.
   – Lift the brush/pad-holder and press one or both the switches (J, Fig. 13) for a few seconds, then release them: this causes the brush/pad-holder to be disengaged.
2. Disconnect the power supply cable plug (M, Fig. 13) from the electrical mains. Roll up the power supply cable on the handlebar into position (N).
3. Empty the tanks (B and C, Fig. 12) according to the procedure shown in the previous paragraph.
4. Perform the daily maintenance operations (see the Maintenance chapter).
5. Store the machine in a clean and dry place, with the brush/pad and the squeegee lifted or removed.

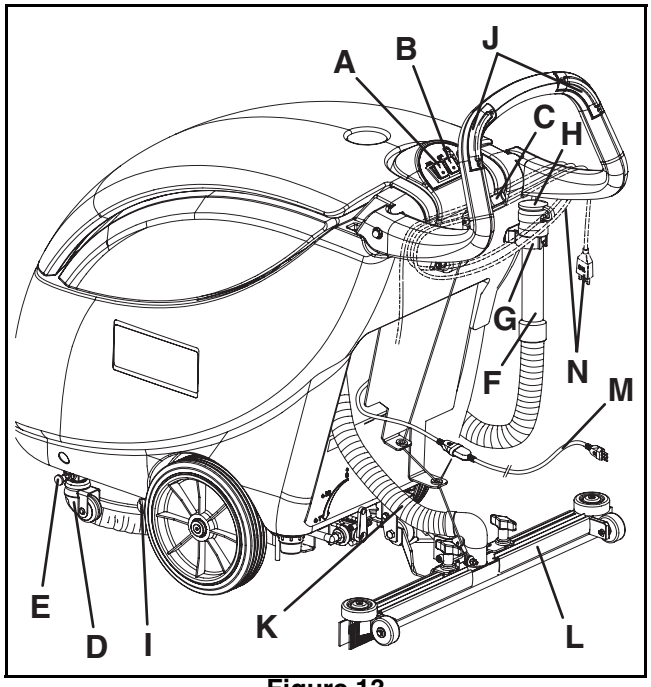


Figure 13

RECOVERY TANK REMOVAL

To perform check and maintenance operations, it may be necessary to remove the recovery water tank (15, Fig. H) according to the following procedure:

1. Empty the tank (A, Fig. 15) according to the procedure shown in the relevant paragraph.
2. Drive the machine on a level ground.
3. Make sure that the power supply cable (M, Fig. 14) is disconnected from the electrical mains.
4. Disconnect the vacuum hose (A, Fig. 14) from the squeegee (B).
5. Disconnect the recovery tank drain hose (C, Fig. 14) from the bracket (D).
6. Open the cover (B, Fig. 15) and apply the cover stand (C).
7. Grasp the recovery tank (A, Fig. 15) in the area (D) and slightly lift it, as shown in the figure.
8. Disconnect the vacuum hose (E, Fig. 15) from the tank, then remove the tank (A) with the hoses (F) and (G).

STORED MACHINE

If the machine is not going to be used for more than 30 days, proceed as follows:

1. Perform the operations described in the paragraph After using the machine.
2. Store the machine in a clean and dry place, with the brush/pad and the squeegee lifted or removed.

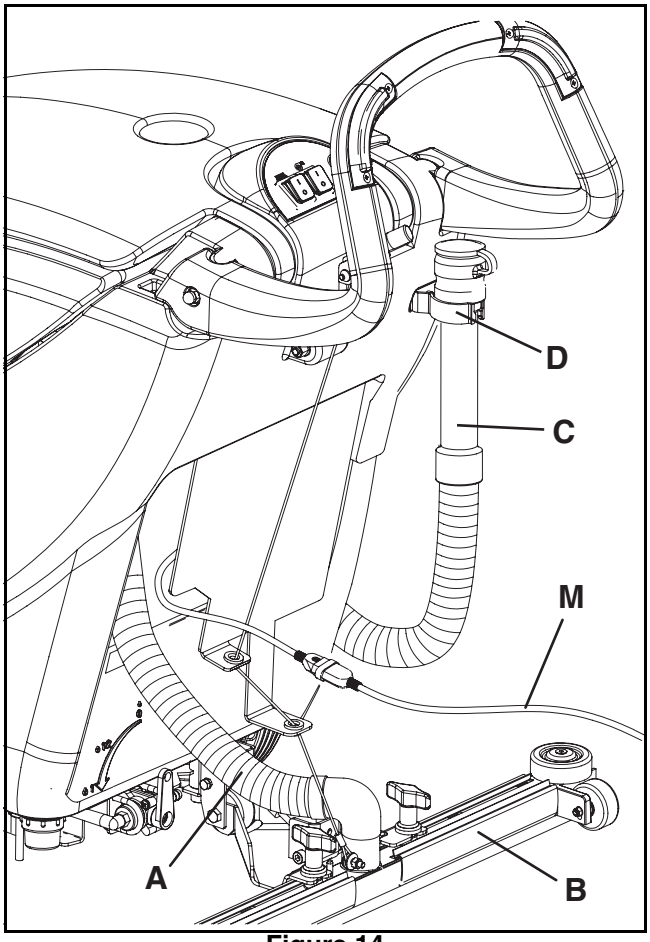


Figure 14

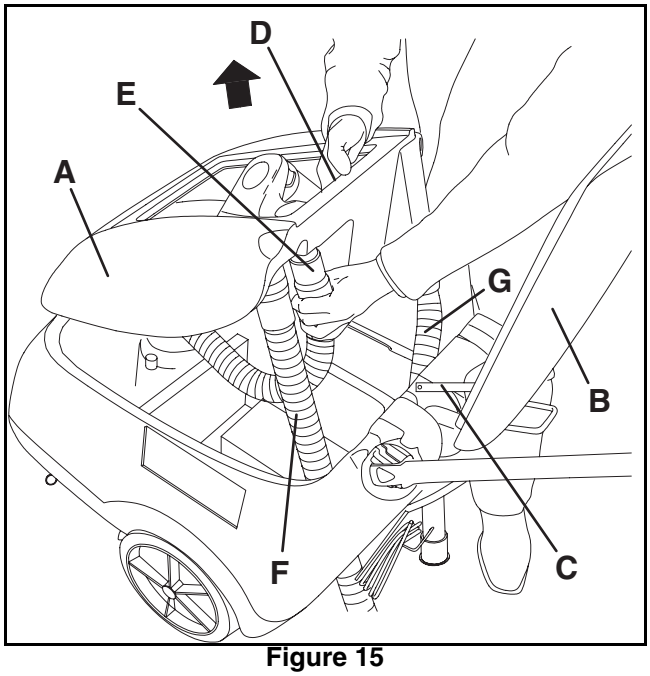


Figure 15

MAINTENANCE

WARNING: **All maintenance operations must be performed by qualified personnel, or by an authorized Service Center.**

WARNING: **Maintenance operations must be carried out:**
- **With the machine switched off**
- **With the power supply cable disconnected from the electrical mains**

Moreover, read carefully the instructions in the Operator Safety Instructions chapter before performing any maintenance operation.

The lifespan of the machine and its maximum operating safety are ensured by correct and regular maintenance.

Provided below is the Scheduled Maintenance Table. The intervals shown may vary according to particular working conditions, which are to be defined by the person in charge of the maintenance.

This Manual contains the Scheduled Maintenance Table and describes only the easiest and most common maintenance procedures.

SCHEDULED MAINTENANCE TABLE

Procedure	Daily or after using the machine	Weekly	Every six months	Yearly
Integrity Check of Power Supply Cable and Extension	●			
Squeegee Cleaning	●			
Brush Cleaning	●			
Cleaning of Tank and Vacuum Grid with Float	●			
Squeegee Blade Check and Replacement		●		
Solution Filter Cleaning		●		
Screw and Nut Tightening Check			● **(1)**	
Vacuum Motor Carbon Brush Check or Replacement				● **(2)**

(1): and after the first 8 working hours
(2): for these maintenance operations, contact an authorized Clarke Service Center

INTEGRITY CHECK OF POWER SUPPLY CABLE AND EXTENSION

Carefully check if the power supply cable, the extension and the plugs are worn or damaged.
If necessary, have them replaced by the Service Center.

SQUEEGEE CLEANING

NOTE:
The squeegee must be clean and the blades must be in good condition in order for the floor to dry properly.

CAUTION:
It is advisable to use protective gloves when cleaning the squeegee because there may be cutting debris.

1. Make sure that the power supply cable (A, Fig. 16) is disconnected from the electrical mains.
2. Lower the squeegee (B, Fig. 16) by means of the lever (C).
3. Disconnect the vacuum hose (D, Fig. 16) from the squeegee.
4. Loosen the squeegee knobs (F, Fig. 16) and remove the squeegee (D).
5. Wash and clean the squeegee assembly to remove dirt and debris.
6. Check the front blade (C, Fig. 17) and the rear blade (D) for wear, cuts and tears; if required replace them according to the procedure in the “Squeegee Blade Check and Replacement“ section below).
7. Reassemble in the reverse order of disassembly.

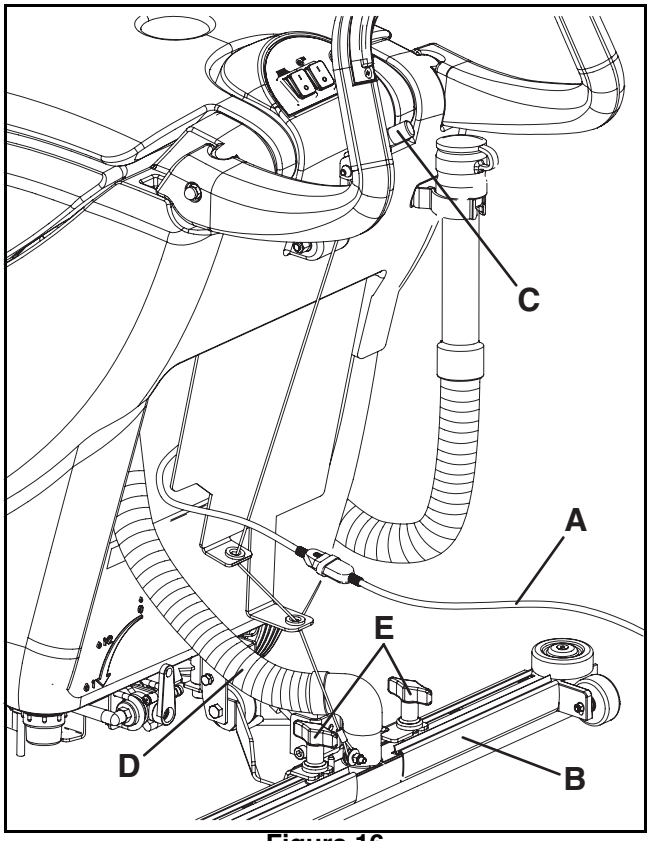


Figure 16

SQUEEGEE BLADE CHECK AND REPLACEMENT

1. Clean the squeegee according to the procedure shown in the previous paragraph.
2. Check that the edge (E, Fig. 17) of the front blade and the edge (F) of the rear blade lay down on the same level, along their length; otherwise adjust their height according to the following procedure:
   – Remove the fixing springs (G, Fig. 17) and adjust the front blade (C) and the rear blade (D).
   – Reinstall the fixing springs on the properly adjusted front and rear blades.
3. Check the front blade (C, Fig. 17) and rear blade (D) for wear, cuts and tears. If necessary, replace them according to the following procedure:
   – Removie the spring clamp (G, Fig. 17) and replace the blade.

NOTE:
When replacing the blades, make sure that the ribs of the front blade face the front and the ribs of the rear blade face the rear.

   – Reinstall the spring clamp (G, Fig. 17).
4. Reinstall the squeegee (B, Fig. 16) and screw down the squeegee knobs (E).
5. Connect the vacuum hose (D, Fig. 16) to the squeegee (B).

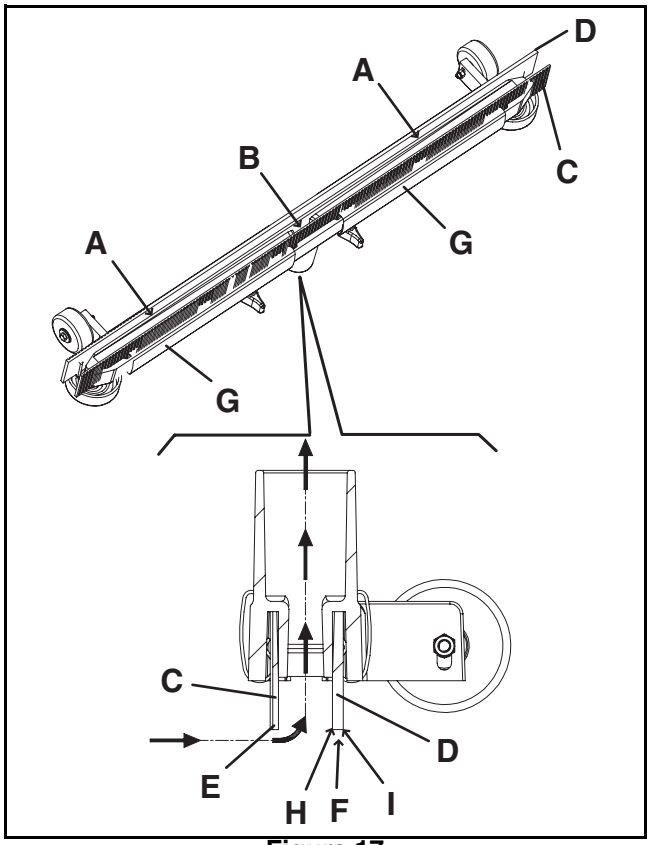


Figure 17

BRUSH CLEANING

CAUTION:
It is advisable to use protective gloves when cleaning the brush because there may be cutting debris.

1. Remove the brush from the machine, according to the procedure shown in the Use chapter.
2. Clean and wash the brush with water and detergent.
3. Check the brush bristles for integrity and wear; if necessary, replace the brush.

CLEANING OF THE TANK AND VACUUM GRID FLOAT

1. Make sure that the power supply cable (A, Fig. 18) is disconnected from the electrical mains. Roll up the power supply cable on the handlebar into position (D).
2. Drive the machine to the appointed disposal area.
3. Lift the cover (A, Fig. 19) and apply the cover stand (B), then clean and wash the cover, the tanks (C and D) and the vacuum grid (E) with clean water.
   Drain the water from the tanks by means of the drain hose (B, Fig. 18) and valve (C).
4. If necessary, release the retainers (F, Fig. 19), open the vacuum grid (E), remove the float (G), then carefully clean and reinstall them.
5. Check the cover sealing gasket (H, Fig. 19) of the recovery tank for wear.

NOTE:
The gasket (H, Fig. 19) creates vacuum in the tank, which is necessary for the vacuuming of the recovery water.

   If necessary, replace the gasket (H, Fig. 19) after removing it from the housing (I).
   When reassembling the new gasket, install the joint (J) in the central area, as shown in Fig. 19.
6. Check the gasket (H, Fig. 19) seating surface (K) for integrity and sealing capabilities.
7. Check the vent hole (L, Fig. 19). If clogged, clean it.

NOTE:
The hole (L, Fig. 19) compensates the air in the cover interspaces, thus allowing the creation of vacuum in the recovery tank.

8. Remove the cover stand (B, Fig. 19) and close the cover (A).

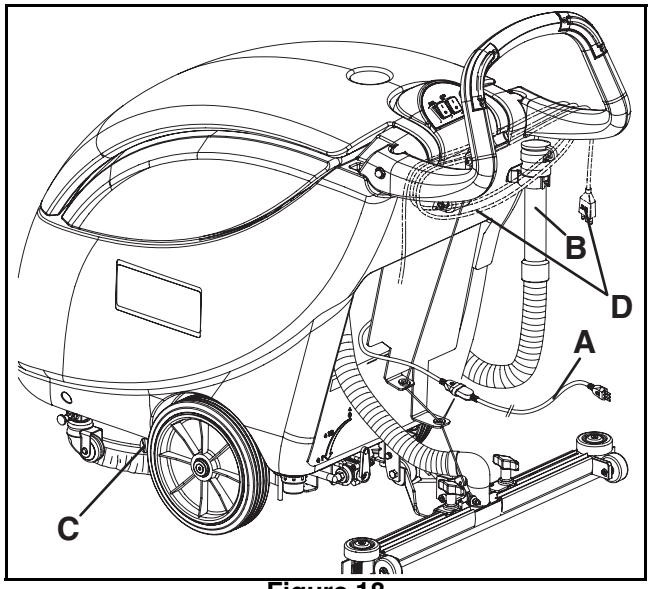


Figure 18

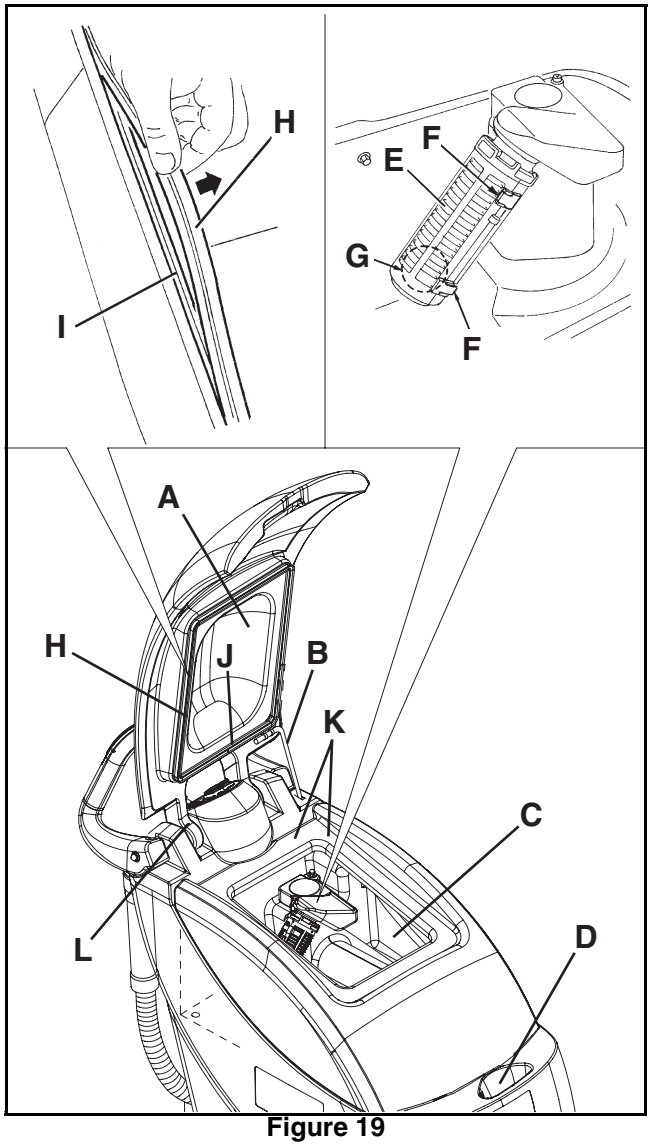


Figure 19

SOLUTION FILTER CLEANING

1. Empty the solution tank (A, Fig. 20) according to the procedure shown in the relevant paragraph.
2. Make sure that the power supply cable (H, Fig. 20) is disconnected from the electrical mains.
3. Drive the machine on a level ground.
4. Remove the transparent cover (D, Fig. 20) and the filter strainer (E), then clean and reinstall them on the support (F).

NOTE:
Properly install the strainer (E, Fig. 20) in the housing (G) of the support (F).

MACHINE SPEED ADJUSTMENT

NOTE:
The machine speed depends on the type of floor to be cleaned and on the choice of using brush or pad. The machine speed can be adjusted according to the following procedure.

1. Remove the recovery tank as shown in the Use chapter.
2. Adjust the machine speed by means of the screw (A, Fig. 21), according to the following procedure:
   – Loosen the screw (B, Fig. 21) on the right side of the machine, by turning it counter-clockwise.
   – Turn the adjusting screw (A, Fig. 21) counter-clockwise to increase the machine speed.
   – Turn the adjusting screw (A, Fig. 21) clockwise to decrease the machine speed.
   – After adjusting, tighten the screw (B, Fig. 21).
3. Install the recovery tank as shown in the Use chapter.
4. With the machine ready to operate, carry out hands-on tests of the machine speed and, if other adjustments are necessary, repeat steps 1 to 4.

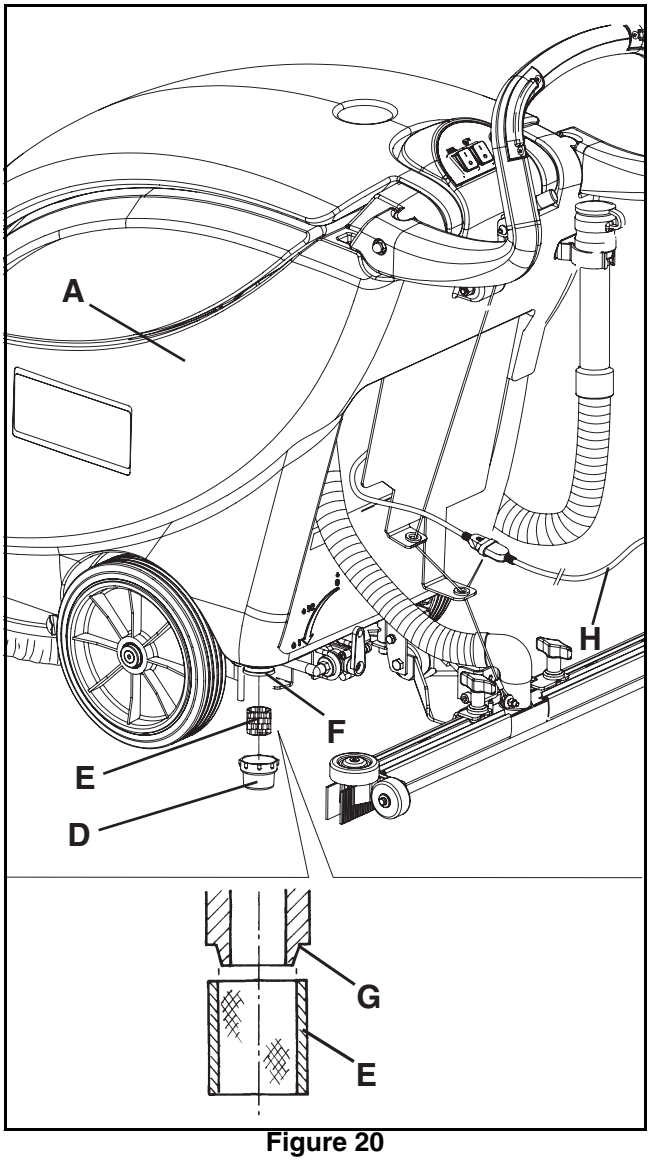


Figure 20

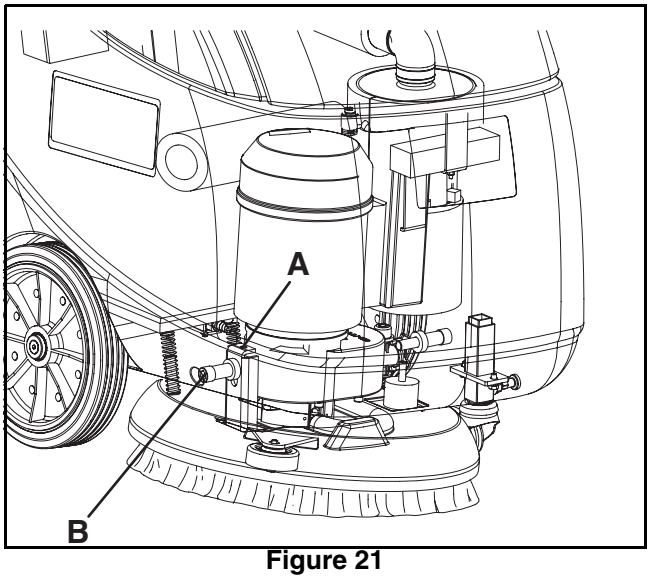


Figure 21

Vantage 17 Cable ACCESSORIES/OPTIONS

In addition to the standard components, the machine can be equipped with the following accessories/options, according the machine specific use:
For further information concerning the above-mentioned optional accessories, contact an authorized Retailer.

ACCESSORIES/OPTIONS

See “Parts List” section.

HOW TO CORRECT PROBLEMS IN THE MACHINE

PROBLEM	POSSIBLE CAUSE	ACTION
The motors do not work	Power supply cable disconnected from the electrical mains	Connect the power supply cable
	Power supply cable faulty	Repair/replace the power supply cable
Insufficient recovery water vacuuming	Full recovery tank	Empty the tank
	Clogged vacuum grid or stuck closed float	Clean the vacuum grid and the float
	Vacuum hose disconnected from the squeegee or faulty	Connect or repair/replace it
	Dirty squeegee, or worn or damaged squeegee blades	Clean the squeegee or replace the blades
	Improperly closed recovery tank cover or worn gasket or clogged vent hole	Correctly close the cover or replace the gasket or clean the vent hole
Insufficient solution flow to the brushes	Dirty solution filter	Clean the filter
	Clogged recovery tank output hole	Clean the hole
The squeegee leaves streaks on the floor	Debris under the squeegee blades	Remove the debris
	Worn, chipped or torn squeegee blades	Replace the blades

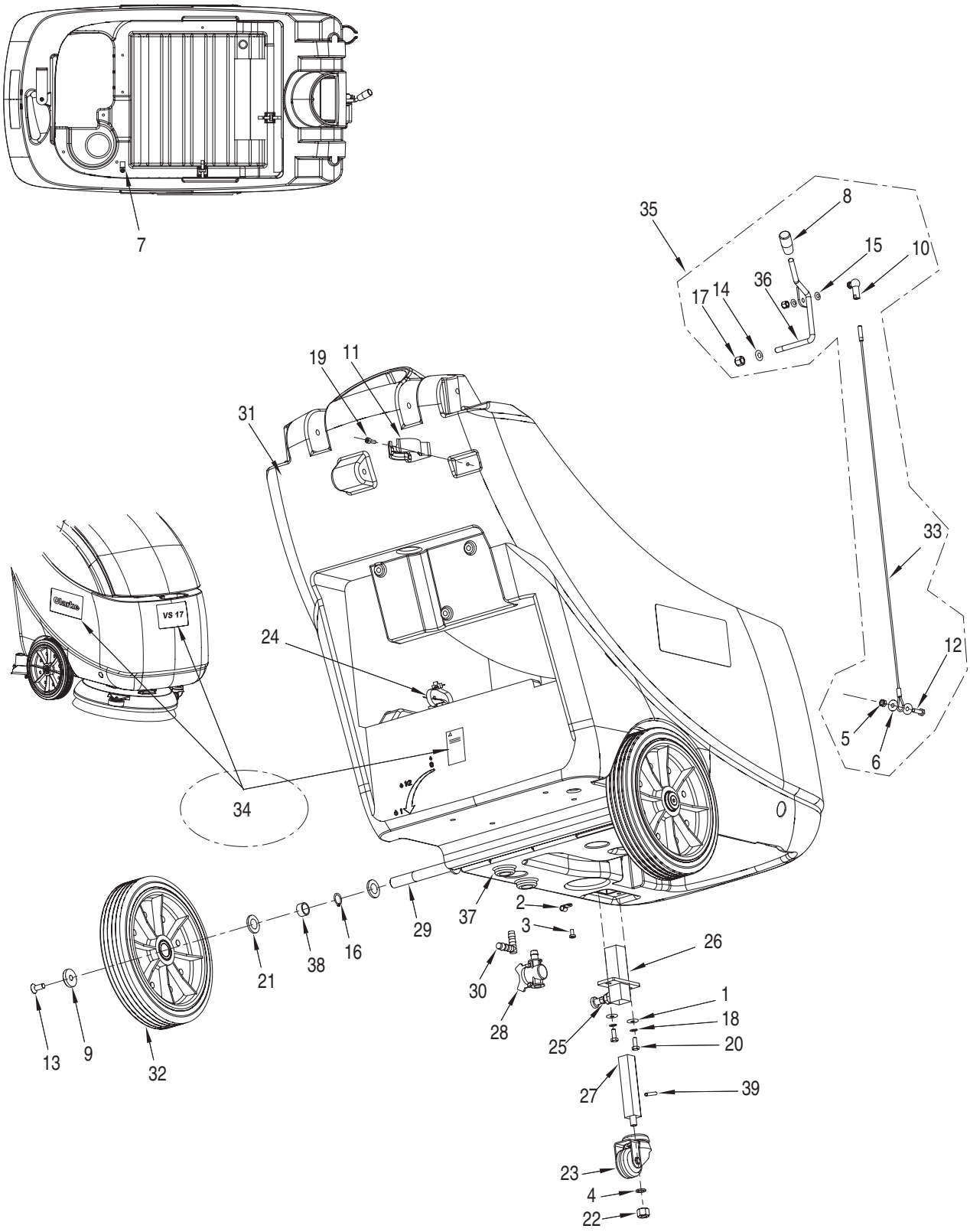
Clarke®

Vantage 17 Cable, 115V
Vantage 17 Cable, 230V

Parts List

[] = Not shown
*** = optional**
 # = Modified item No. or New item No.
xxxxx = Contained in a Kit

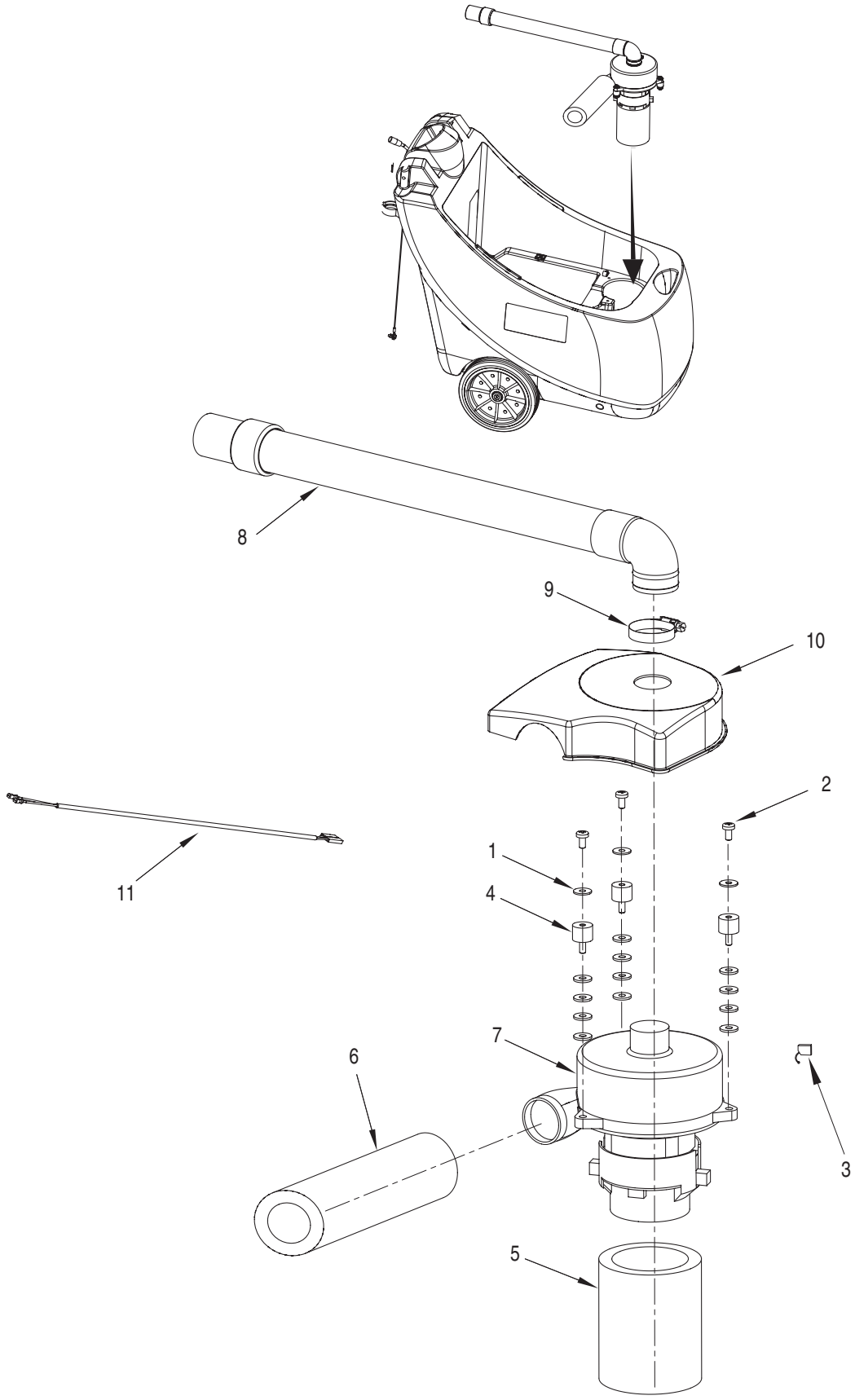
Solution Tank



Solution Tank

Ref.	Part No.	Description	Qty
1	8228600	Washer flat 6X18 (Solution tank hardware kit)	2
2	8239900	Clamp (Solution tank hardware kit)	1
3	8603041	Screw M5X10 (Solution tank hardware kit)	5
4	8603258	Washer flat 11X16	1
5	8603682	Nut hex. low self lock M6 SS (Kit squeegee lift cable)	1
6	8603689	Washer flat 6X18 SS (Kit squeegee lift cable)	2
7	8603845	Cable clamp	1
8	8812349	Knob (Kit squeegee lift cable)	1
9	8812392	Spacer	2
10	145 8479 000	Ball joint (Kit squeegee lift cable)	1
11	8812967	Hose clamp (Solution tank hardware kit)	1
12	145 0253 000	Screw hex hd M6X20 SS (Kit squeegee lift cable)	1
13	145 5033 000	Screw M8X20 (Solution tank hardware kit)	2
14	145 9120 000	Washer flat 8X17 (Kit squeegee lift cable - Solution tank hardware kit)	1
15	145 9128 000	Washer flat 6X12,5 (Kit squeegee lift cable - Solution tank hardware kit)	2
16	145 9191 000	Retaining ring (Solution tank hardware kit)	2
17	145 9201 000	Nut hex. self lock M8 (Kit squeegee lift cable - Solution tank hardware kit)	1
18	145 9228 000	Washer split (Solution tank hardware kit)	2
19	145 9253 000	Screw M5X16 (Solution tank hardware kit)	1
20	145 9261 000	Screw hex hd M6X16 (Solution tank hardware kit)	2
21	145 9760 000	Washer flat 16X30 (Solution tank hardware kit)	6
22	909 5194 000	Nut hex. self lock M10 (Solution tank hardware kit)	1
23	909 5560 000	Wheel	1
24	909 5606 000	Clamp	2
25	909 5641 000	Indexing plunger	1
26	909 5649 000	Support	1
27	909 5658 000	Supporting rod	1
28	909 5696 000	Valve	1
29	909 5748 000	Wheels shaft	1
30	909 5895 000	Elbow 90° ø10	1
31	909 6271 000	Solution tank	1
32	909 6281 000	Wheel	2
33	909 6283 000	Squeegee lifting cable (Kit squeegee lift cable)	1
34	909 6822 000	Decal Clarke Vantage 17 Cable (Kit decals)	2
35	909 6437 000	Kit squeegee lift cable (5,6,8,10,12,14,15,17,33,36)	1
36	909 6296 000	Squeegee lifting lever (Kit squeegee lift cable)	1
37	909 5286 000	Gasket	2
38	145 2676 000	Spacer (Solution tank hardware kit)	2
39	909 6441 000	Pin 3X20	1
[40]	909 6438 000	Solution tank hardware kit (1,2,3,11,13,14,15,16,17,18,19,20,21,22,38)	1
[41]	909 6463 000	Kit decals KENT Razor E 17 (Decal warning, decal eco solution, decal KENT E17, water faucet - pag. 6 pos. 17, decal brush adjusting - pag. 16 pos. 29)	1

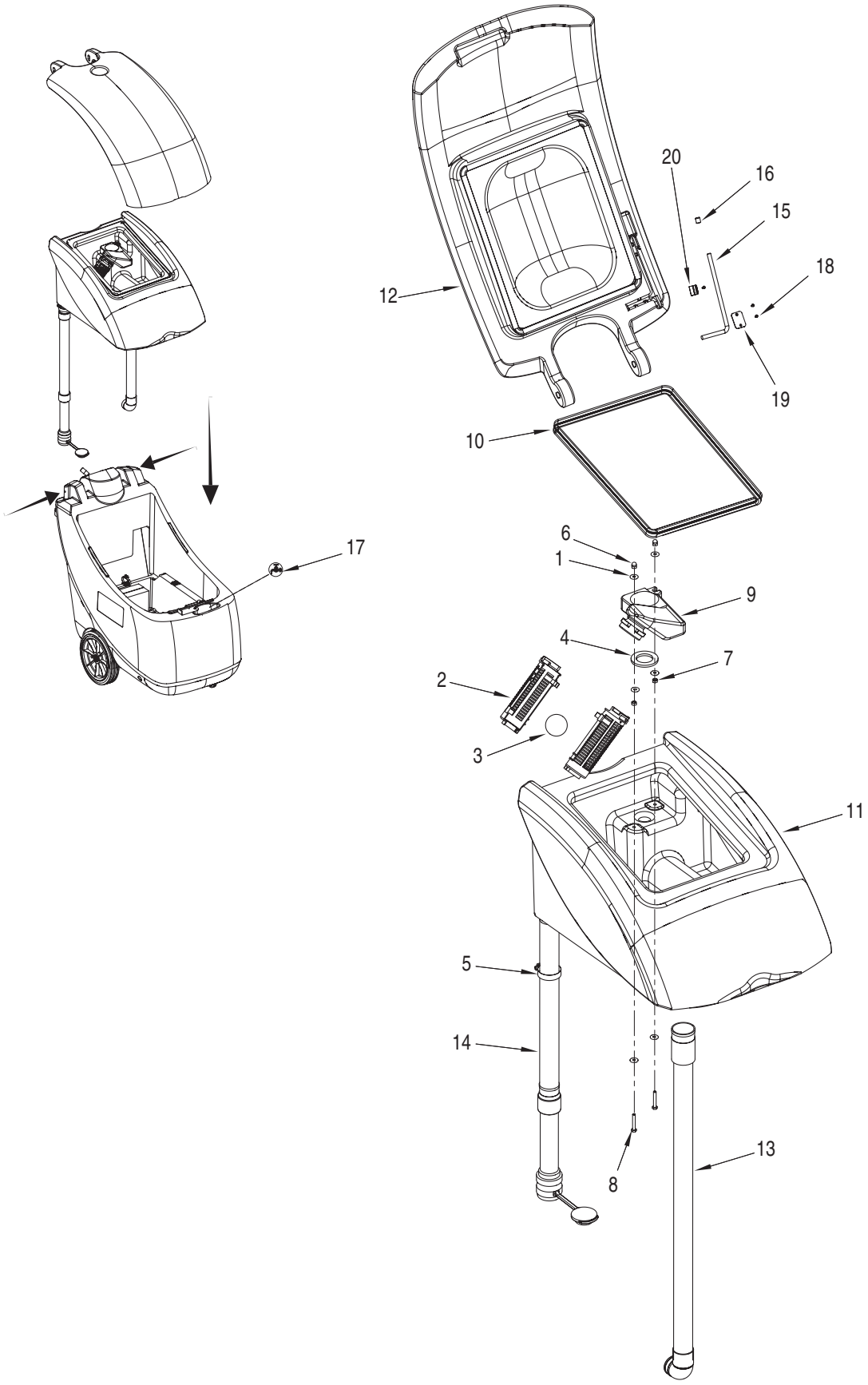
Vacuum System



Vacuum System

Ref.	Part No.	Description	Qty
1	8228600	Washer falt 6x18 (Vacuum systems hardware kit)	15
2	8603706	Screw cyl hd M6x12 (Vacuum systems hardware kit)	3
3	909 5719 000	Carbon brush	2
4	909 5198 000	Vibration damping M6	3
5	909 5564 000	Pipe acoustic insulation	1
6	909 5565 000	Pipe acoustic insulation	1
7	909 5979 000	Kit vacuum motor 550W (115 V)	1
7	909 5723 000	Kit vacuum motor 550W (230 V)	1
8	909 6290 000	Vacuum motor hose	1
9	146 0104 000	Hose clamp	1
10	909 5972 000	Motor protection	1
11	909 5859 000	Cable vacuum motor (115 V)	1
11	909 5598 000	Cable vacuum motor (230 V)	1
[12]	909 5987 000	Vacuum systems hardware kit (1,2)	1

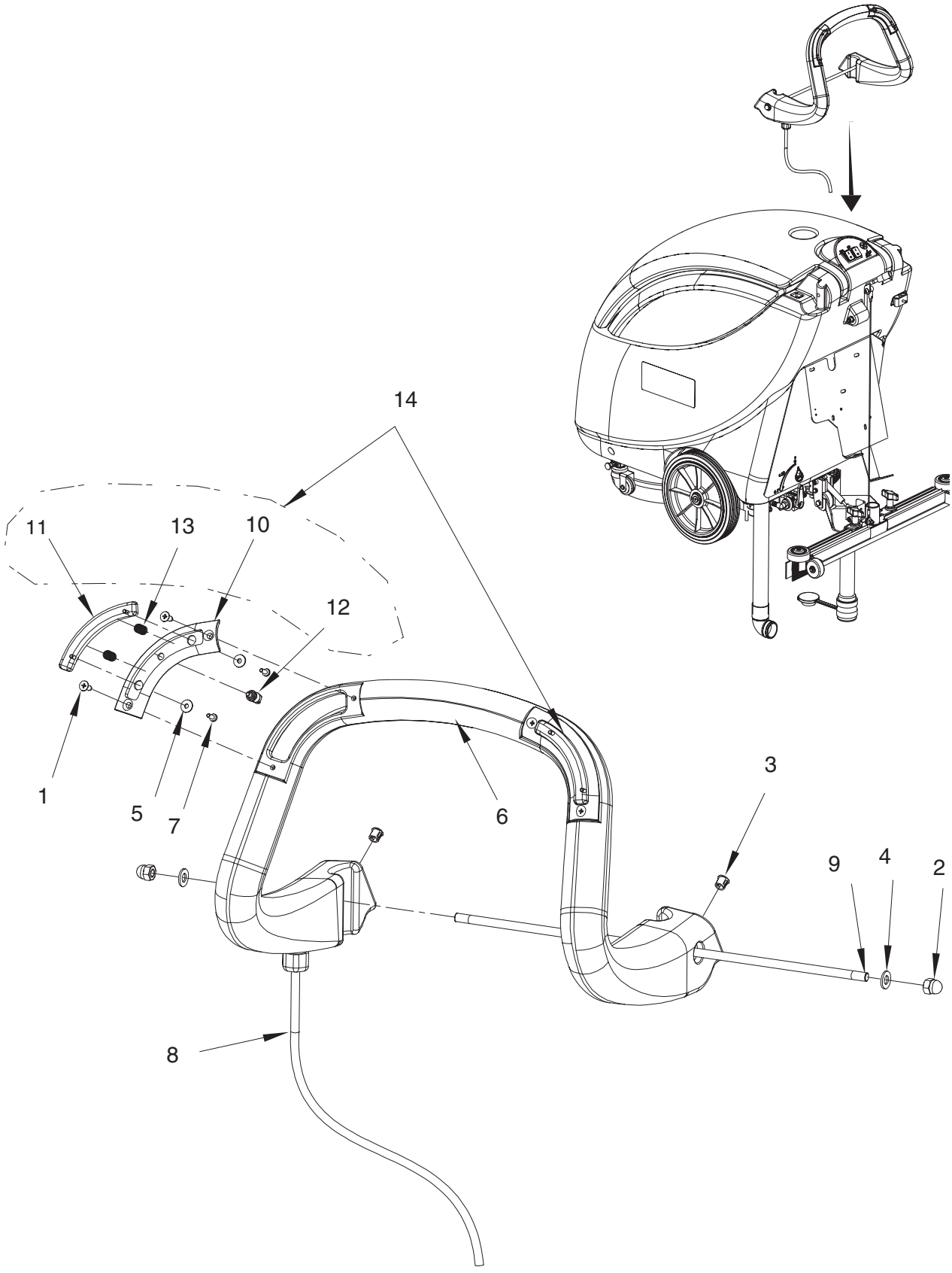
Recovery Tank



Recovery Tank

Ref.	Part No.	Description	Qty
1	8603689	Washer flat 6X18 SS (Recovery tank hardware kit)	6
2	56324497	Float cage	2
3	56391690	Floating ball	1
4	8812968	Gasket	1
5	145 0543 000	Hose clamp 14/32-52 (Recovery tank hardware kit)	1
6	145 4618 000	Nut cap M6 SS (Recovery tank hardware kit)	2
7	145 9960 000	Nut hex M6 SS (Recovery tank hardware kit)	2
8	146 2511 000	Screw hex hd M6X40 SS (Recovery tank hardware kit)	2
9	909 6199 000	Holder, float cage	1
10	909 6268 000	Gasket 1370 mm	1
11	909 6272 000	Recovery tank	1
12	909 6273 000	Tank cover	1
13	909 6289 000	Vacuum hose	1
14	909 6291 000	Drain hose	1
15	909 6762 000	Lever for fixing cover	1
16	8603935	Black cap	1
17	xxx xxxx xxx	Decal water faucet (kit decals)	1
[18]	909 5988 000	Recovery tank hardware kit (1,5,6,7,8)	1

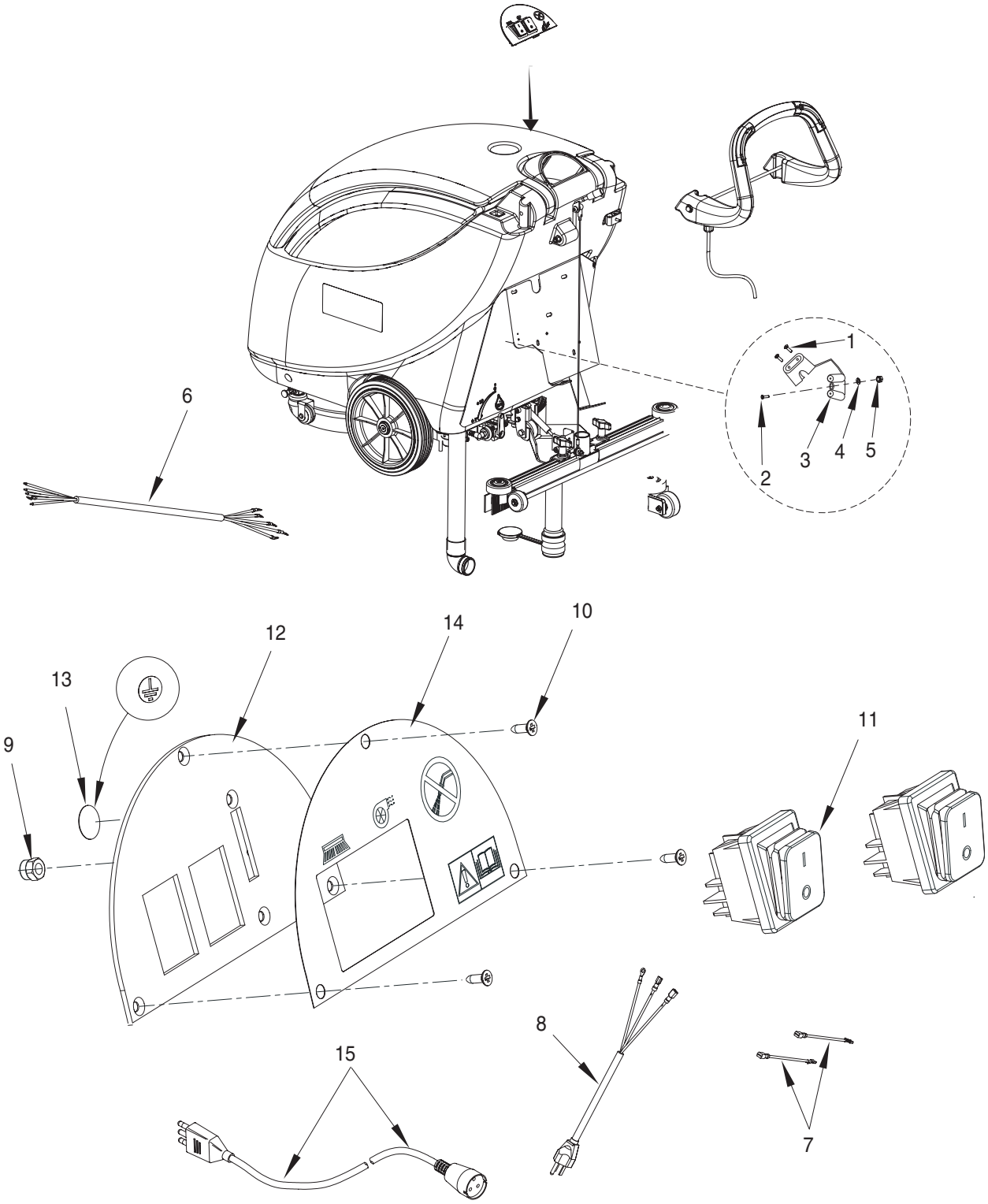
Handle Assembly



Handle Assembly

Ref.	Part No.	Description	Qty
1	08812074	Screw 4.2x16 THD form	4
2	32400258	Nut M8	2
3	145 4262 000	Cap D. 9.5	2
4	145 9120 000	Washer flat 8x17	2
5	145 9237 000	Washer flat 4x12	4
6	909 6488 000	Handle bar PE	1
7	909 6760 000	Screw pan HD PHIL M3.5X10	4
8	909 6769 000	Harness handle cable	1
9	909 6774 000	Pin handle bar	1
10	xxxxxx	Switch housing (Kit push button)	2
11	xxxxxx	Switch lever (Kit push button)	2
12	xxxxxx	Switch (Kit push button)	2
13	xxxxxx	Spring (Kit push button)	4
14	11077A	Kit push button (10, 11, 12, 13)	1

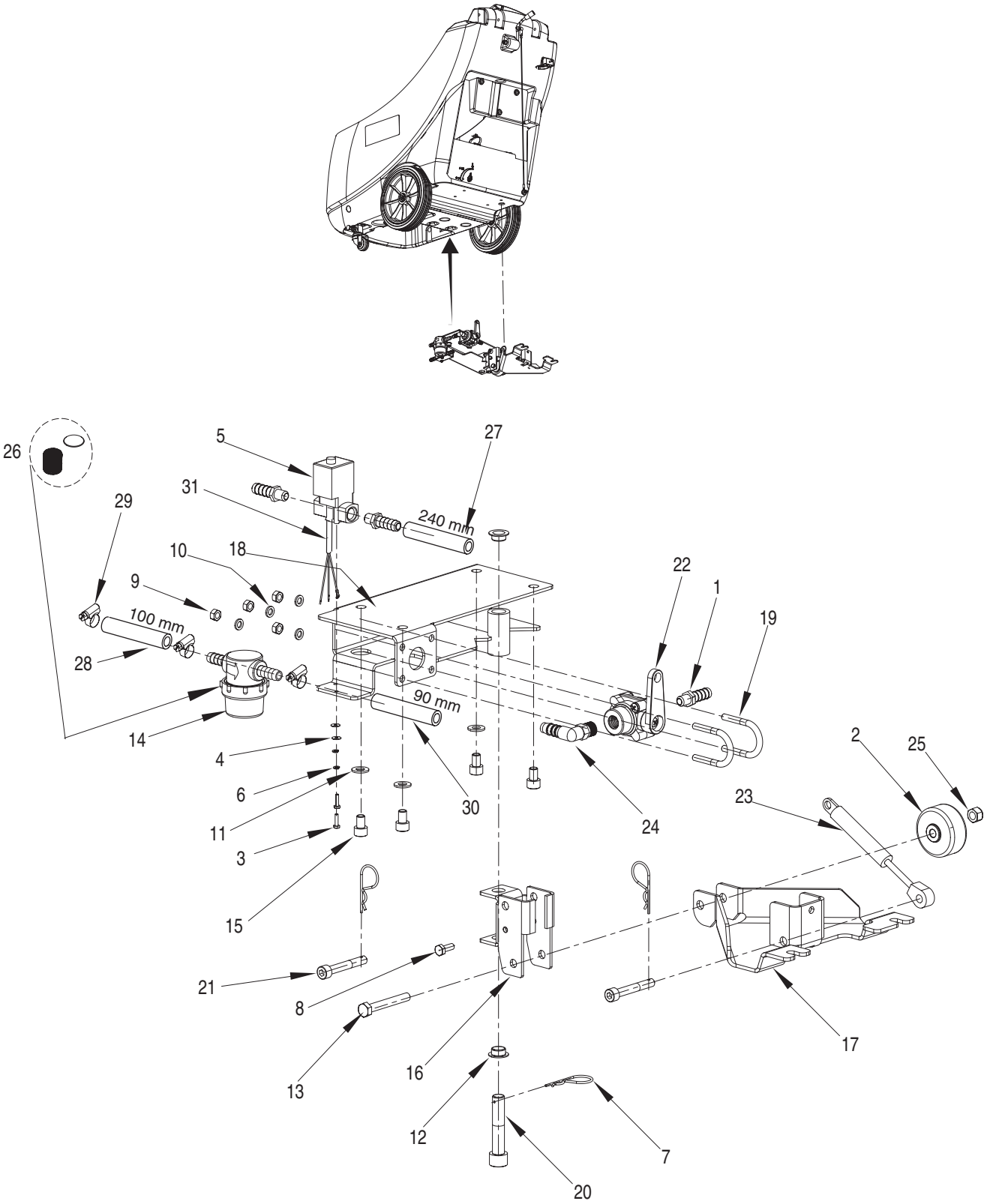
Control Panel Assembly



Control Panel Assembly

Ref.	Part No.	Description	Qty
1	145 5873 000	Screw M4,2X19	2
2	145 9650 000	Screw 4x12	1
3	08338600	Clamp	1
4	145 9296 000	Washer	1
5	08053500	Nut hex M4	1
6	909 6308 000	Control panel cable (115 V)	1
6	909 6300 000	Control panel cable (230 V)	1
7	08812916	Cable bridge	2
8	909 6307 000	Power cable (115 V)	1
8	909 6229 000	Power cable (230 V)	1
9	08603720	Nut hex. M4 self lock SS	1
10	145 1756 000	Screw 2.9X9 THD form. SS	3
11	909 5584 000	Switch	2
12	909 6275 000	Panel control	1
13	909 6526 000	Decal earthing	1
14	909 6776 000	Decal control panel	1
15	909 5791 000	Cable extension	1

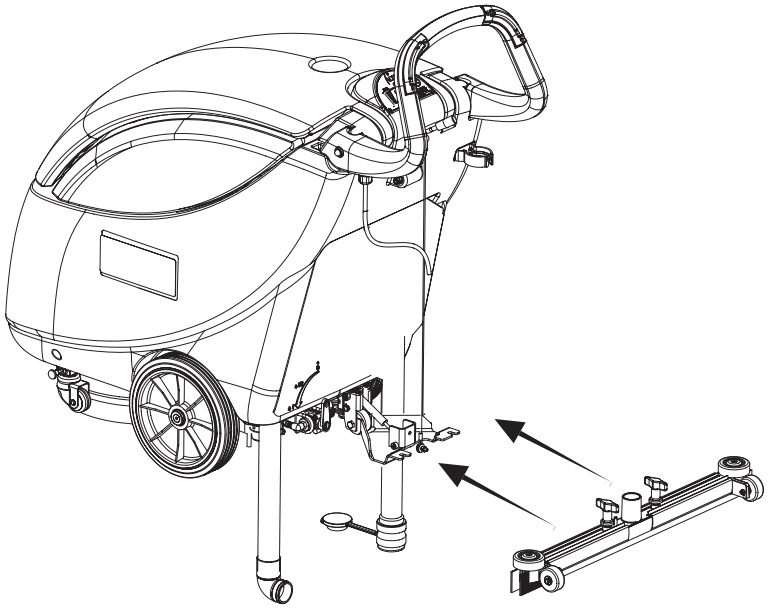
Solution System

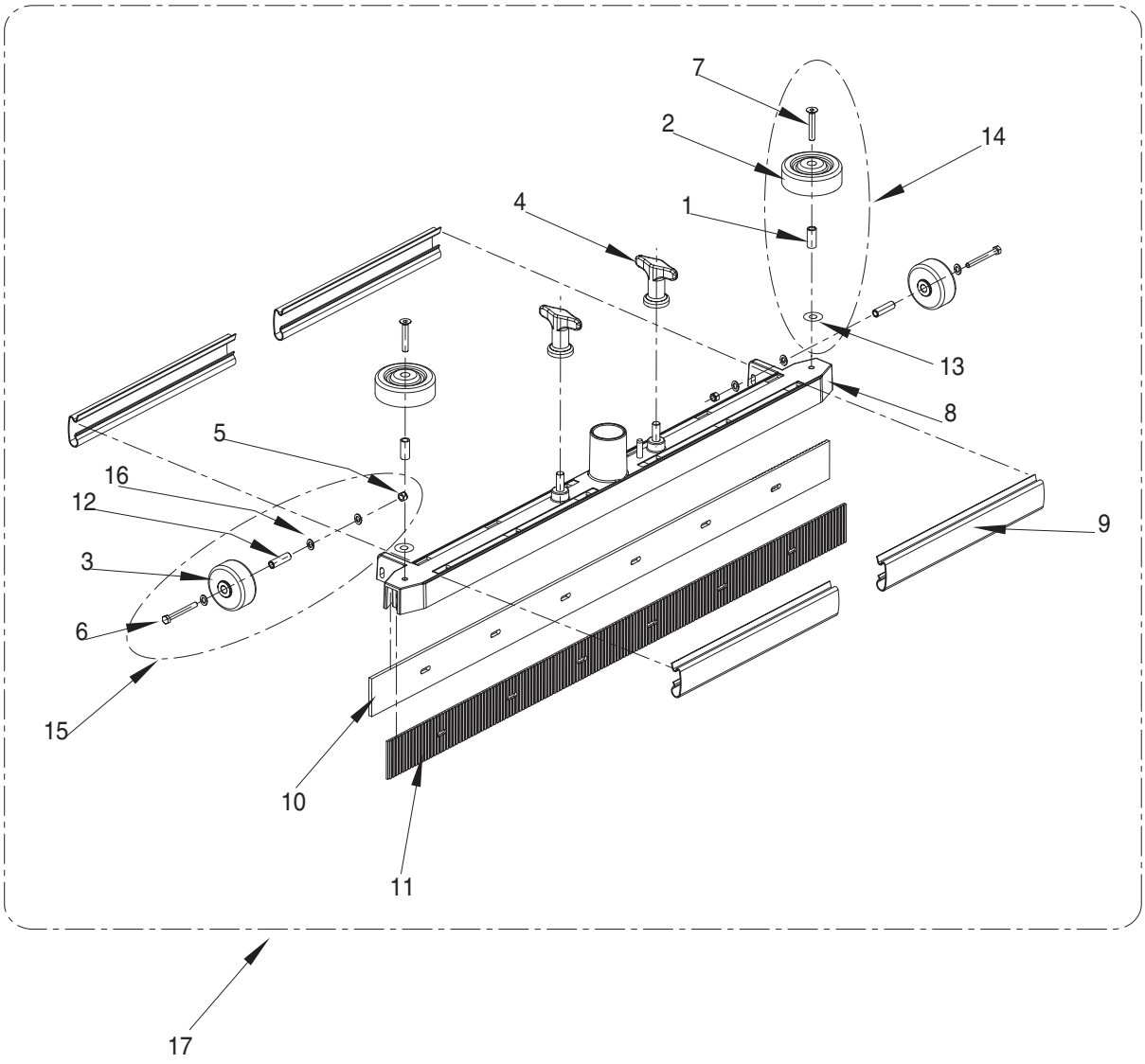


Solution System

Ref.	Part No.	Description	Qty
1	8601624	Rubber holder (Solenoid valve kit)	3
2	8603665	Wheel	1
3	8603895	Screw hex hd M3x12 SS (Solution systems hardware kit)	2
4	8812097	Washer flat 3x9 SS (Solution systems hardware kit)	2
5	8812959	Solenoid valve (Solenoid valve kit) (115 V)	1
5	08812913	Solenoid valve (Solenoid valve kit) (230 V)	1
6	8812986	Washer split 3 SS (Solution systems hardware kit)	2
7	145 4533 000	Split pin (Solution systems hardware kit)	3
8	145 9959 000	Screw hex hd M6x16 SS (Solution systems hardware kit)	1
9	145 9960 000	Nut hex M6 SS (Solution systems hardware kit)	4
10	145 9961 000	Washer flat 6x12,5 SS (Solution systems hardware kit)	4
11	145 9979 000	Washer flat 8x17 SS (Solution systems hardware kit)	3
12	146 0549 000	Bushing	2
13	909 5786 000	Screw hex hd M8x55 SS (Solution systems hardware kit)	1
14	909 5151 000	Kit water filter complete (Solenoid valve kit)	1
15	909 5297 000	Screw M8x12 (Solution systems hardware kit)	4
16	909 6277 000	Bracket	1
17	909 6278 000	Support	1
18	909 6280 000	Plate	1
19	909 5572 000	Clamp (Solution systems hardware kit)	2
20	909 5580 000	Screw M12x60 SS (Solution systems hardware kit)	1
21	909 5581 000	Screw M8x55 SS (Solution systems hardware kit)	2
22	909 5632 000	Valve (Solenoid valve kit)	1
23	909 5637 000	Spring	1
24	909 5651 000	Rubber holder (Solenoid valve kit)	1
25	145 0452 000	Nut hex low self lock M8 SS (Solution systems hardware kit)	1
26	8603893	Kit filter net with gasket	1
27	909 5140 000	Hose ø10 240 mm (Solenoid valve kit)	1
28	909 5026 000	Hose ø10 100 mm (Solenoid valve kit)	1
29	145 8582 000	Clamp 8/ 9-16 (Solenoid valve kit)	3
30	145 4154 000	Hose ø10 90 mm (Solenoid valve kit)	1
31	909 5860 000	Solenoid cable (115 V)	1
31	909 5599 000	Solenoid cable (230 V)	1
[32]	8603885	Connector for solenoid valve	1
[33]	909 5980 000	Solenoid valve kit (115 V) (1,5,14,22,24,27,28,29,30)	1
[33]	909 5699 000	Solenoid valve kit (230V) (1,5,14,22,24,27,28,29,30)	1
[34]	909 5990 000	Solution systems hardware kit (3,4,6,7,8,9,10,11,13,15,19,20,21,25)	1

Squeegee Assembly

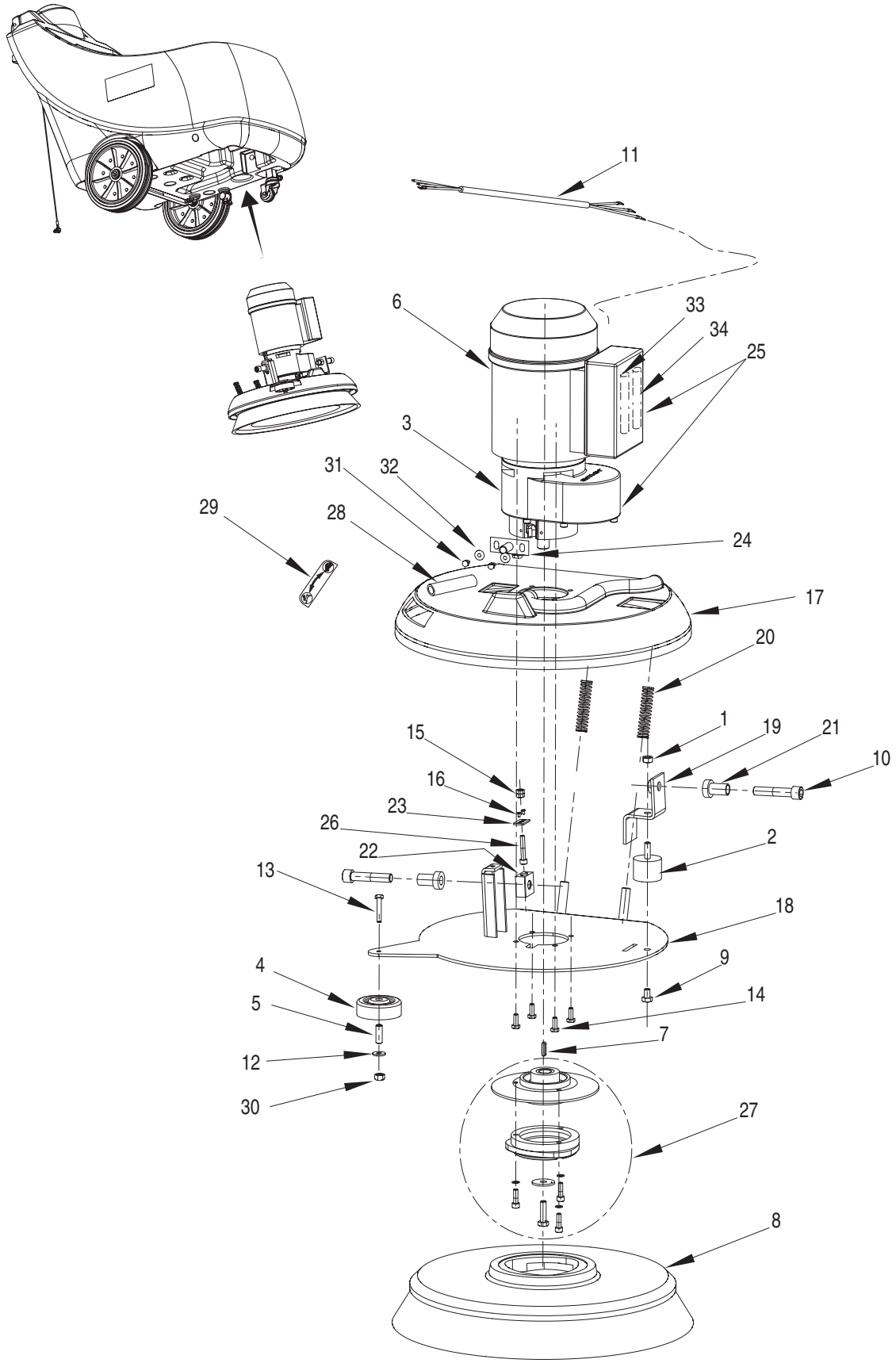




Squeegee Assembly

Ref.	Part No.	Description	Qty
1	8812937	Spacer (Kit squeegee bumper roller - Kit squeegee complete - Squeegee assembly hardware kit)	2
2	8602460	Bumper roller (Kit squeegee bumper roller - Kit squeegee complete - Squeegee assembly hardware kit)	2
3	8603665	Squeegee wheel (Kit squeegee wheel - Kit squeegee complete)	2
4	8603675	Nut thumb (Kit squeegee complete - Squeegee assembly hardware kit)	2
5	8603688	Nut hex low selflock M5 SS (Kit squeegee wheel - Kit squeegee complete - Squeegee assembly hardware kit)	2
6	8603896	Screw hex hd M5x45 SS (Kit squeegee wheel - Kit squeegee complete - Squeegee assembly hardware kit)	2
7	8812987	Screw M6x35 (Kit squeegee bumper roller - Kit squeegee complete - Squeegee assembly hardware kit)	2
8	909 5554 000	Squeegee weldment (Kit squeegee complete)	1
9	909 5555 000	Spring (Kit squeegee complete)	4
10	909 5568 000	Blade rear (Kit squeegee complete)	1
11	909 5569 000	Blade front (Kit squeegee complete)	1
12	909 5607 000	Spacer (Kit squeegee wheel - Kit squeegee complete - Squeegee assembly hardware kit)	2
13	8603689	Washer flat 6x18 SS (Kit squeegee complete - Squeegee assembly hardware kit)	2
14	8603880	Kit squeegee bumper roller (1,2,7)	1
15	909 5703 000	Kit squeegee wheel (3,5,6,12,16)	1
16	145 8280 000	Washer flat 5x15 SS (Kit squeegee wheel - Kit squeegee complete - Squeegee assembly hardware kit)	6
17	909 5702 000	Kit squeegee complete (1,2,3,4,5,6,7,8,9,10,11,12,13, 16)	1
[18]	909 5991 000	Squeegee assembly hardware kit (1,2,4,5,6,7,12,13,16)	1

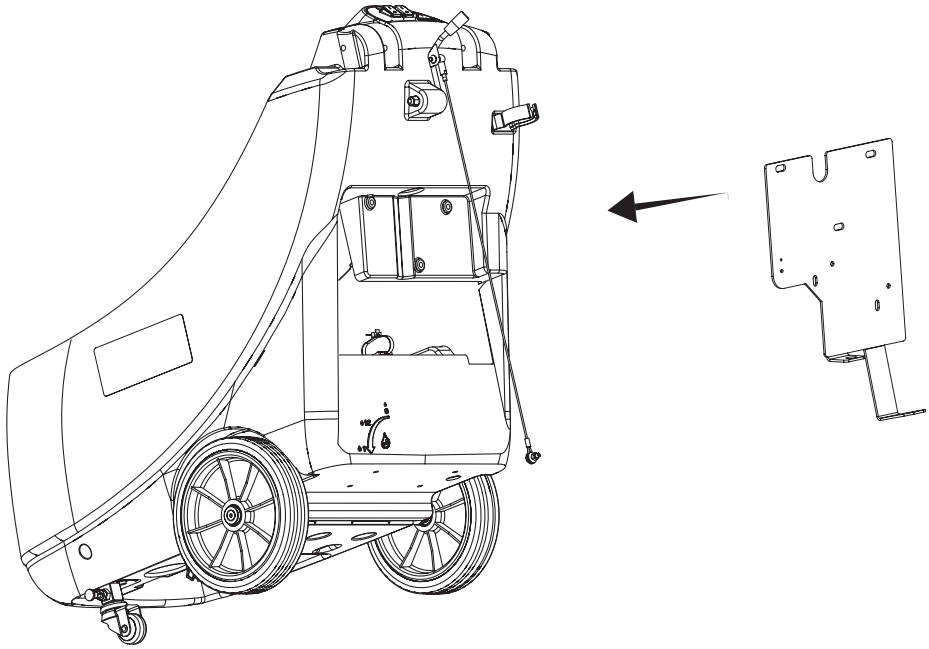
Brush System

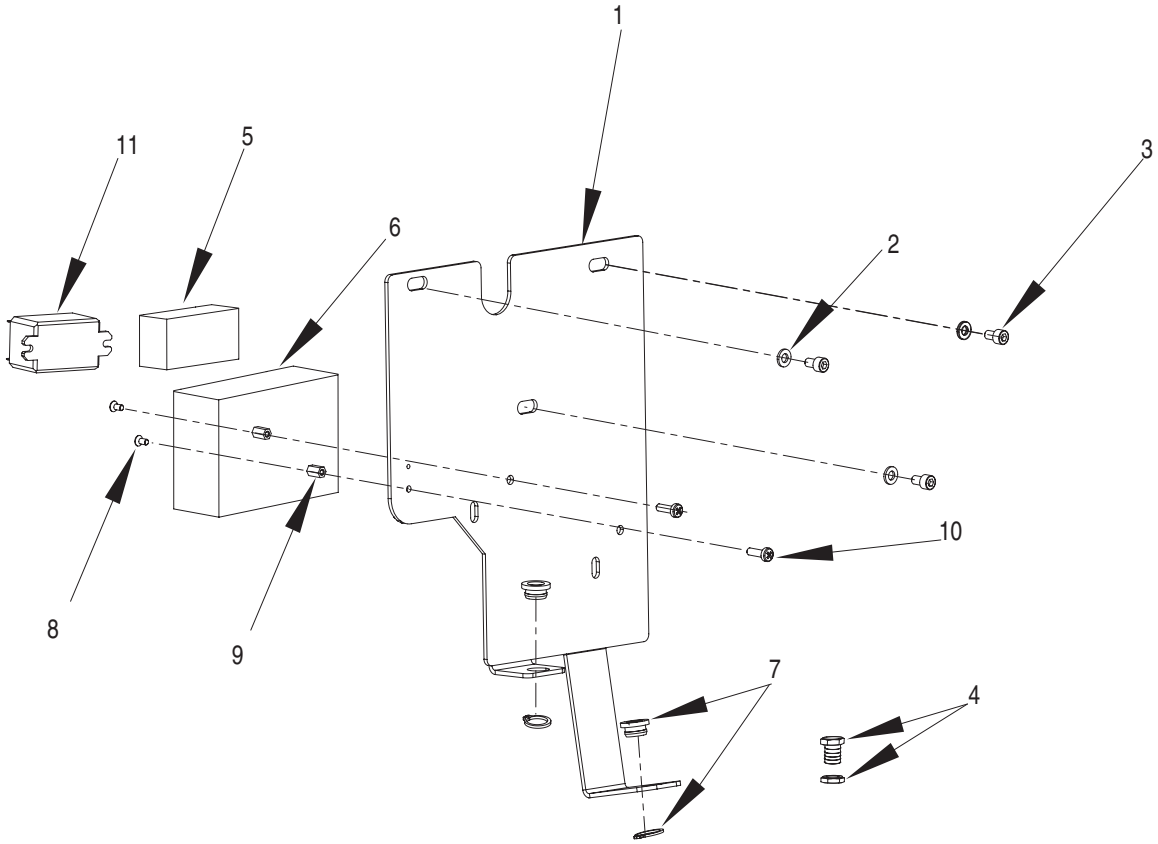


Brush System

Ref.	Part No.	Description	Qty
1	8084900	Nut (Brush system hardware kit)	1
2	08219000	Vibration damping	1
3	909 5480 000	Reduction gear	1
4	56363855	Bumper roller	1
5	8602461	Spacer	1
6	909 5482 000	Electric motor, 550W (115 V)	1
6	909 5722 000	Electric motor, 1100W (230 V)	1
7	145 9774 000	Tab (Brush system hardware kit)	1
8	909 5695 000	Pad Driver	1
8*	8812891	Brush ø430 17” Prolene PPL	1
8*	909 5691 000	Brush ø430 17” Midlite Grit180	1
9	146 0115 000	Screw hex hd M8x12 (Brush system hardware kit)	1
10	146 2826 000	Screw M12x55 (Brush system hardware kit)	2
11	909 5858 000	Brush motor cable	1
12	8228600	Washer flat 6x18 (Brush system hardware kit)	2
13	145 5877 000	Screw M6x40 (Brush system hardware kit)	1
14	145 9959 000	Screw hex hd M6x16 SS (Brush system hardware kit)	4
15	145 9960 000	Nut hex M6 SS (Brush system hardware kit)	2
16	909 5284 000	Screw M3x6 (Brush system hardware kit)	2
17	909 5550 000	Brush protection	1
18	909 6269 000	Plate brush support	1
19	909 6270 000	Bracket	1
20	909 5558 000	Spring	2
21	909 5559 000	Bushing	2
22	909 5585 000	Brush deck adjuster block	1
23	909 5586 000	Plate	1
24	909 6217 000	Hose copper	1
25	909 5472 000	Reductiongearmotor, 550W (115 V)	1
25	909 5639 000	Reductiongearmotor, 1100W (230 V)	1
26	146 0097 000	Screw M6x30 (Brush system hardware kit)	1
27	8812589	Polyg.holder w.flange kit	1
28	909 5622 000	Hose ø10 640 mm	1
29	xxx xxxx xxx	Decal brush adjusting (Kit decals)	1
30	8361400	Nut hex M6 selflock. low	1
31	146 0632 000	Screw hex hd M4x8	2
32	145 9237 000	Washer flat 4x12	2
33	909 5481 000	Capacitor 450V 40µF (115 V)	1
33	909 5931 000	Capacitor 450V 30µF (230 V)	1
34	909 5106 000	Capacitor 400V 65µF (230 V)	1
34	08603912	Capacitor (230 V)	1
[35]	909 5992 000	Brush system hardware kit (1,7,9,10,12,13,14,15,16,26)	1

Wiring System

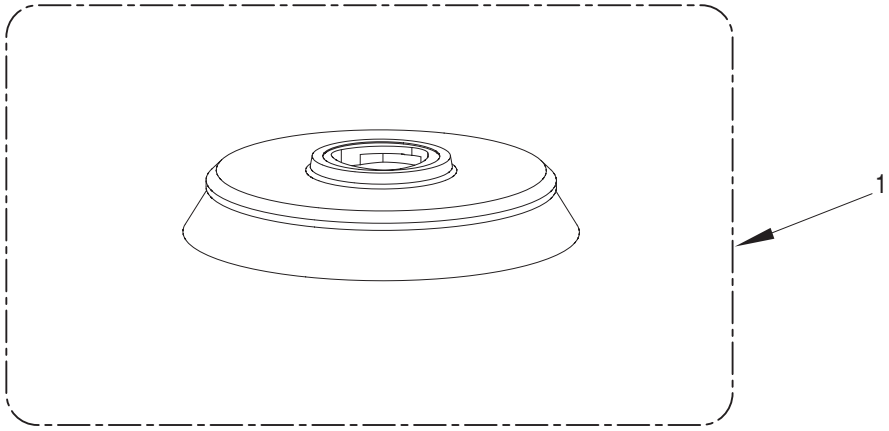


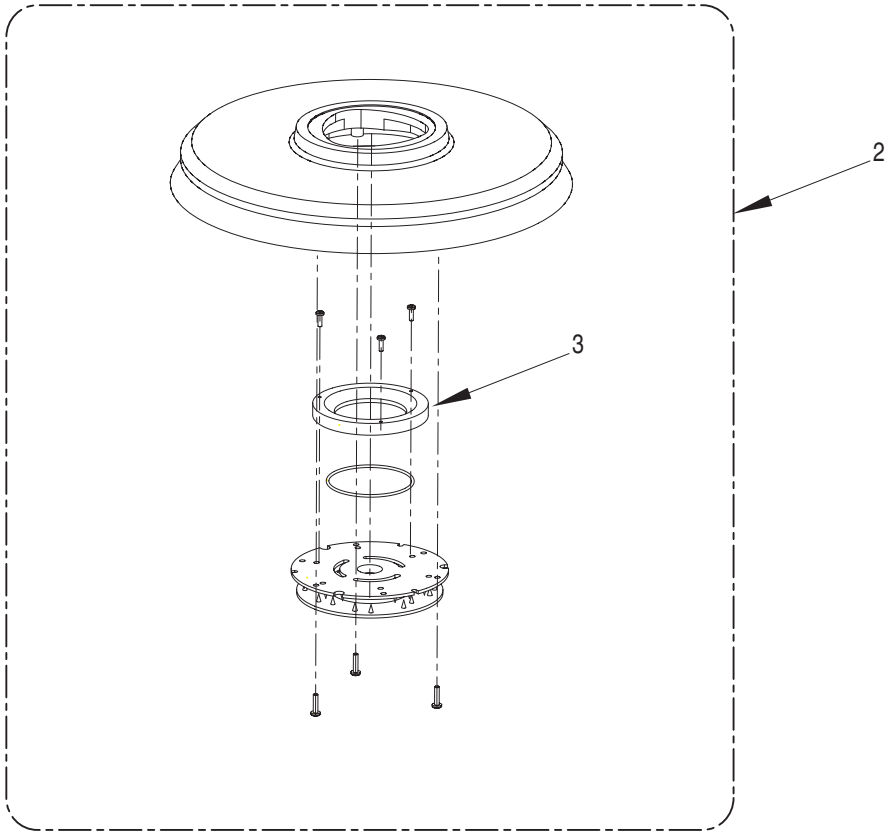


Wiring System

Ref.	Part No.	Description	Qty
1	909 6297 000	Electrical components fitting plate	1
2	8085700	Washer flat 8X17	3
3	145 9759 000	Screw M8x16	3
4	909 5648 000	Clamp cable with nut	4
5	909 5650 000	Terminal board 5 studs	1
6	909 6778 000	Electric box	1
7	909 6062 000	Kit bush cable giude and retaining ring	2
8	8603706	Screw cyl hd M6x12	2
9	8812468	Spacer	2
10	145 6018 000	Screw M6X10	2
11	909 6779 000	Relay brush (115 V)	1
11	909 6784 000	Relay brush (230 V)	1
[12]	8603912	Suppression capacitor	1

Accessories - Pad holder kit





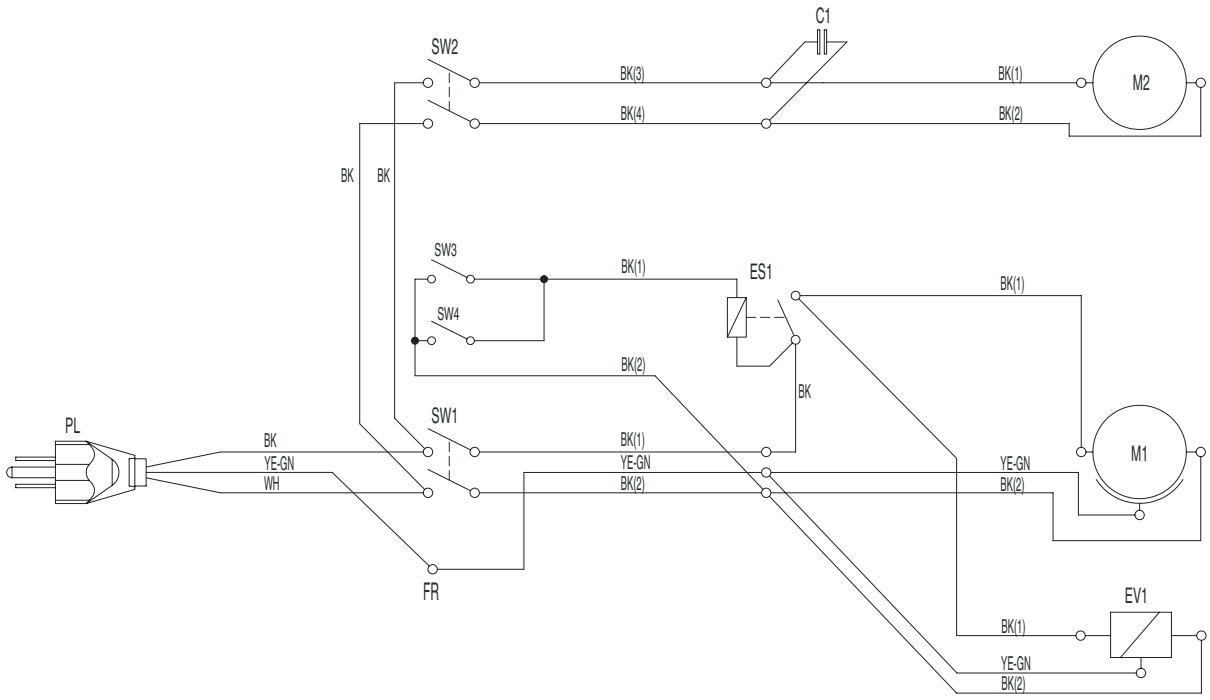
Accessories - Pad holder kit

Ref.	Part No.	Description	Qty
1	08812891	Brush, 17”	1
1*	909 5691 000	Brush ø430 17” Midlite Grit180	1
1*	909 5693 000	Brush ø430 Prolite	1
2*	909 5695 000	Pad holder 410	1
3	8603966	Ring nylon	1

Recommended Spare Parts

Ref.	Part No.	Description	Qty
		WEAR PARTS	
[1]	909 5151 000	Kit water filter complete	1
[2]	08603893	Kit filter net with gasket	1
[3]	909 6268 000	Gasket L = 1370 mm	1
[4]	909 5568 000	Blade rear	1
[5]	909 5569 000	Blade front	1
[6]	909 5555 000	Spring	4
[7]	08812891	Brush ø 430 Prolene PPL std	1
		ORDINARY MAINTENANCE	
[8]	909 6291 0000	Drain hose	1
[9]	909 6289 000	Suction hose	1
[10]	909 6290 000	Vacuum motor hose	1
		EXTRAORDINARY MAINTENANCE	
[11]	909 5699 000	Solenoid valve kit (230 V)	1
[12]	08812913	Solenoid valve (230 V)	1
[13]	08812959	Solenoid valve (115 V)	1
[14]	909 5980 000	Solenoid valve kit (115 V)	1
[15]	909 5651 000	Rubber holder 90° for hose ø10	1
[16]	08601624	Rubber holder 1/4	3
[17]	909 5696 000	Valve	1
[18]	909 5723 000	Kit vacuum motor, 550W (230 V)	1
[19]	909 5979 000	Kit vacuum motor, 550W (115 V)	1
[20]	909 5719 000	Carbon brush	2
[21]	909 6283 000	Squeegee lifting cable	1
[22]	909 6437 000	Kit squeegee lift cable	1
[23]	909 5564 000	Pipe acoustic insulation	1
[24]	909 5565 000	Pipe acoustic insulation	1
[25]	909 5639 000	Reductiongear motor, 1100W (230 V)	1
[26]	909 5472 000	Reductiongear motor, 550W (115 V)	1
[27]	909 5931 000	Capacitor 450V 30µF (230 V)	1
[28]	909 5481 000	Capacitor 450V 40µF (115 V)	1
[29]	909 5106 000	Capacitor 450V 65µF (115 V)	1
[30]	08603912	Capacitor (230 V)	1
[31]	08219000	Vibration damping M8	1
[32]	909 5558 000	Spring	2
[33]	08602460	Bumper roller	1
[34]	909 6281 000	Wheel	2
[35]	909 5554 000	Squeegee weldment	1
[36]	909 5702 000	Kit squeegee complete	1
[37]	909 5703 000	Kit squeegee wheel	2
[38]	08603880	Kit squeegee bumper roller	2
[39]	909 6062 000	Kit bush cable guide and retaining ring	1
[40]	909 5584 000	Switch	1
[41]	909 6784 000	Relay (230 V)	1
[42]	909 6779 000	Relay (115 V)	1

Wiring Diagram



LEGENDA		
C1	SUPPRESSION CAPACITOR 08603912	
ES1	BRUSH RELAIS	
EV1	ELECTROVALVE 08812959	
FR	FRAME 909 5563 000	
M1	BRUSH MOTOR 909 5472 0000	
M2	VACUUM MOTOR KIT 909 5979 000	
PL	PLUG 909 5862 000	
SW1	BRUSH SWITCH 909 5584 000	
SW2	VACUUM SWITCH 909 5584 000	
SW3	RIGHT HANDLE BRUSH SWITCH	11077A
SW4	LEFT HANDLE BRUSH SWITCH	

COLORS CODES		
BK	BLACK	nero
BU	BLUE	azzurro
BN	BROWN	marrone
GN	GREEN	verde
GY	GREY	grigio
OG	ORANGE	arancio
PK	PINK	rosa
RD	RED	rosso
VT	VIOLET	viola
WH	WHITE	bianco
YE	YELLOW	giallo